

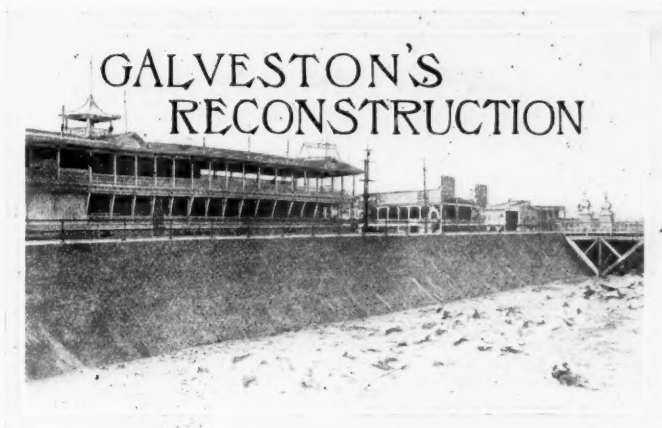
# Municipal Journal

## And Engineer

VOLUME XXIV

NEW YORK, JUNE 10, 1908

No. 24



THE NEW SEA WALL AT "THE BEACH"

EDITORIAL CORRESPONDENCE

**E**IGHT years ago Galveston had a population of about 45,000. In September, 1900, the storm which wrecked a large part of the city destroyed about 6,000 lives; and this and the exodus which followed reduced the population almost at once to about 23,000. Since then its population has steadily increased until it is now about 37,500.

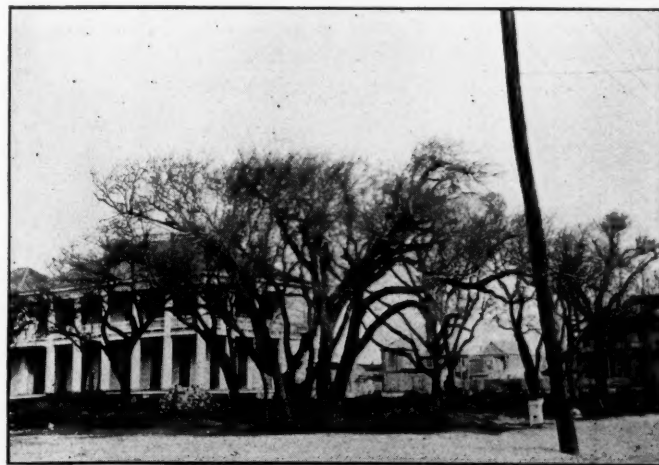
The city is built on an island which is about thirty miles long and has an average width of two to two and one-half miles, the widest point being five miles across. The city is on the extreme easterly end of the island, which is here about one and one-half miles across, and extends back about four miles. In spite of the tremendous setback occasioned by the storm, Galveston now has next to the largest amount of foreign export of any United States port and occupies fourteenth place among all the ports of the world. The harbor is protected by two jetties begun in 1890 by the United States, which were almost completely wrecked by the storm of 1900 but have now been reconstructed, the United States Government spending three million dollars on this and on the widening of the channel.

After the Galveston disaster the city took immediate steps to protect itself from similar inundations in the future, and a large part of its energy since that time has been directed toward this end, or has been expended in improvements more or less directly connected with such efforts. With the permission of the Legislature, the city bonded itself for \$1,500,000 to build a sea wall which is 17 feet high and 3 1-2 miles long. In addition, a mile of sea wall has been built by the United States

Government to protect its property. Along the foot of a large part of the wall riprap has been piled for a width of 25 to 30 feet. Adjoining the top of the wall is a boulevard 100 feet wide. The outside 16 feet is a concrete sidewalk, protected on the water side by a heavy iron railing; inside of this is a 54-foot roadway and the inside 30 feet is reserved for a parkway. In order to assist the city and county in paying for this wall the state agreed to refund the city and county taxes for seventeen years beginning in 1902.

A considerable part of the city was lower than the top of this wall and consequently deprived of drainage, and to provide for this the grade of such sections is being raised 17 feet at the sea wall, tapering out to nothing at Broadway. This raising of the grade has been even a more tremendous undertaking than the building of the sea wall. Work was begun by dredging a canal into the outskirts of the city in which boats could be floated. Sand was dredged up from the bottom of the gulf and loaded upon hopper boats, of which four were used to bring the filling material into the canal where, mixed with water, it was discharged through long pipes onto the land, the water which rendered it semi-fluid running back into the bay. This method is slow and so expensive that it is feared that the contractor will lose money on the work.

The original contractors sublet a part of the work to the North American Dredging Company at 18 1-2 cents per cubic yard. This company operated on a different plan. Purchasing land on a bayou near the outskirts of the city, they located a suction dredge there and pumped



TREES KILLED BY SALT WATER

the excavated material through a 20-inch pipe directly to the place to be filled. Part of the fill required that the material be carried a distance of two miles from the dredge, which is believed to be a record for this kind of work. This required the use of two "boosters," or second-pumps, along the line of the pipe. At the dredge a steam-driven centrifugal pump is used, which discharges the sand and water into the pipe line under a 40-pound pressure. From the dredge to the first booster is 4,500 to 4,800 feet. There a steam-driven centrifugal pump is located in a semi-permanent station in which is also an electric generator which furnishes the power to drive the second booster located 3,100 feet further. The pressure in this section is 25 pounds. From the second booster to the end of the line, the distance varies from 2,500 to 3,500 feet and the pressure from 10 to 15 pounds. Oil is used for fuel on the dredge and the first booster.

The sand used for filling, mixed with water, is discharged behind dykes, where the heavier sand settles, and the silt and water run off into settling basins in which



HOUSES RAISED IN PREPARATION FOR FILLING

the finer silt also settles out; these basins catching about 10 per cent. of the solid material pumped. The mixture pumped by the dredge is about 92 per cent. water and 8 per cent. sand. From 5,000 to 6,000 cubic yards of sand are deposited per day. The longest continuous run which has been made by the dredge is 70 hours. During January of this year the total running time was 661 hours and 40 minutes, and during January, February and March the total time was 1,880 hours. The experience had with this work at Galveston would seem to indicate the possibility of reclaiming much swamp land along the coast by similar methods.

In connection with the raising of the grade, several interesting methods and expedients were adopted. All water pipes were removed from their original position and laid on the top of the old surface, where they were covered by the filling. The filled land is much like quicksand and the construction of new sewers therein has been difficult. It was, of course, necessary to raise such houses as previously existed on the filled area in advance of the filling, and the property owners were compelled to do this at their own expense. One unfortunate circumstance connected with the filling is that the salt water pumped with the sand has killed all the vegetation, the thousands of dollars spent by some property owners in endeavoring to protect their trees being ineffective to this end. An unexpected condition is that even where the fill has been made to a depth of 17 feet, ground water is found only two feet below the surface. It is suggested that this is due to the capillarity of the fine sand used for filling, which retains a part of the water used to transport it. It is to be hoped that this will in time dry out and that the ground water will lower.

Previous to the raising of the city the drainage was in both directions from Broadway to the Gulf on one side and to the bay on the other. The raising of the city has produced considerable alteration in relative surface elevations, and the direction of the drainage has been changed and it will in the future all flow toward the bay. It has therefore been necessary to change a large part of the sewerage system and a gravity system with outlets into slips along the bay water front is now nearly completed.

As might be judged from the above description, the killing of the trees and the filling in of the low lands with the semi-fluid material has given the filled-in areas of



END OF PIPE DISCHARGING WATER-BORNE SAND



PIPE LINE CARRYING DREDGED MATERIAL. THIS LINE  $\frac{3}{4}$  MILE LONG. WALL AND CITY IN THE DISTANCE



the city a desolate and uninviting appearance. Taking the city as a whole, there are very few trees remaining and only a few lawns and flowers. In the reconstructed area everything is a mere waste of wet sand, the sand streets are almost impassable, the houses are on stilts, and many of them are at times cut off entirely from the city by the flow of water and sand used in filling. But while a visitor can see little attraction in all this, the residents are enthusiastic for the future and confident of the importance of the city as a seaport and an outlet for the whole southwest.

Water for the city is secured from thirty artesian wells located on the mainland of Texas, eighteen miles from the city. From these wells the water flows to a covered reservoir, where it is pumped to a standpipe which gives sufficient pressure to force it through a conduit to reservoirs in the city. Here it is again pumped to a standpipe to furnish pressure for the city service. The daily consumption is about three million gallons. About one-half the services are metered, and additions to the meter services are being made as rapidly as possible.

All the paving in the city is being done with brick. The boulevard has now been paved for one and one-fourth miles and will eventually be paved its entire length. Besides this, about sixty city blocks have been paved. Some of the other streets are temporarily surfaced with "mud shell," which is obtained from the Gulf by dredging and which costs about \$1.10 per cubic yard, this amount being sufficient for four square yards of roadway. City Engineer Dickey has recommended the expenditure of \$300,000, of which \$135,000 will be for storm sewers, \$70,000 for brick paving, \$69,000 for shell surfacing and \$20,000 for filling streets and constructing sidewalks. He recommends that every second street in each direction be given a shell surface. On April 23 the citizens voted in favor of bonding the city for \$450,000 for this and other public improvements.

#### Pipe Incrustation from Coagulants

A PECULIAR case of incrustation of water mains, which occurred at Quincy, Ill., was described before the American Water Works Association by Messrs. W. R. Gels-ton and Edwin Bartow. The water supply is obtained from the Mississippi river, and is quite turbid. Sulphate of iron and lime are used as coagulants; the iron solution being drawn through the suction of the Worthington pump, which lifts the water from the intake well to the settling basin, and the lime solution being pumped into the discharge pipe of the same by a small auxiliary pump, connection being made in a valve well just outside of the pump house. This arrangement allowed a thorough mixing of the two solutions with the raw water during the flow through the pipe between this point and the settling basin, 400 feet away.

In 1906 the Worthington pump was found to be working against a rapidly increasing head, although the actual static head was constant at about 47 feet. Investigation of the discharge pipe from the pump to the settling basin revealed incrustation extending from the point of introduction of the lime solution to the basin. Edwin Bartow,

Director of the Illinois State Water Survey, was appealed to for advice. The possibility of dissolving the scale by hydrochloric acid was considered. The incrustation was four inches thick on the inside of a 20-inch main 400 feet long, and consequently amounted to 560 cubic feet. Theoretically it would have required 189,500 pounds of commercial hydrochloric acid to dissolve this amount of calcium carbonate, which was practically the substance composing the incrustation. The cost of the acid only would have been \$895, which seemed to make this method prohibitively expensive. It was consequently decided that the cheapest and only practical method was to cut out the incrustation with hammer and chisels.

In November, when the pumps were working against 100-foot pressure, the storage reservoir was filled and pumping discontinued while the pipe was being cleaned. The upper 60 feet of pipe is exposed in the settling basin and the middle length was removed by melting out the joints so that removal of the deposit could be continued at three points simultaneously. Outside of the settling basin every third or fourth joint of pipe was removed by melting out the joints and cutting off the bell with a diamond pointed chisel. After cleaning, the same pipe was replaced by use of a 20-inch sleeve. Eight men in one week cleaned 150 feet of pipe. The deposit averaged about five inches in thickness, and was about uniform around the circumference of the pipe. Pumping was then renewed and the head found to be 70 feet. In July, 1907, the pressure, which had continued to increase, reached 91 feet. The remainder of the pipe was then cleaned, from 10 to 14 men cleaning the remaining 250 feet in seven days. The total expense of both cleanings was \$420 for labor and material. After the second cleaning the pressure fell to 47 feet, while the pump was making two more revolutions per minute than before.

In order to obviate the necessity of having to repeat this expensive performance, the discharge pipe of the lime solution pump was made to connect with the 20-inch main just outside the wall of the settling basin, allowing 80 feet of pipe for the mixing of the solutions before final discharge into the basin. This does not permit such thorough mixing, and consequently reduces the efficiency of the settling basin and increases the work done by the filters.

The deposit described seems to have formed in about five years. Last winter the same difficulty was found with the gravity line leading from the settling basin to the filters and this was cleaned in the same way.

This incrustation appears to be in no way caused by the iron in the pipe, but would probably have been deposited in a glass-lined or a lead-lined pipe just as abundantly. Although no statement relative thereto was made by either author, it would certainly seem as though the scientific and careful adjustment of the relative amounts of the sulphate of iron and the lime would largely reduce this serious incrustation. If such were not possible, the mixing of these with each other and with the water could, we should think, be effected in an open channel or other readily accessible contrivance where deposits could be removed at little expense.

## SPRINGFIELD'S PROPOSED RESERVOIR

Unusually Large Covered Masonry Reservoir.—Details of the Design.—Extensive Use of Rock Embankment.—Some Features of the Specifications and Contract.

SPRINGFIELD, Mass., is asking bids for a concrete covered reservoir to be used in connection with its Little River water supply which will be an unusually large reservoir of this kind, the inside dimensions being 321 feet by 288 feet. The depth of water in a large part of the reservoir is 26 1-4 feet, while the inside top of the groined arches will extend about three feet higher. The arches will rest upon piers two feet square and will have a uniform span of 14 feet in the clear and a rise of 2 feet 9 inches. One of the features of this reservoir which will necessitate careful treatment to produce successful results is the fact that a little less than half of the bottom of the reservoir will be excavated from rock and a little more than half will rest upon earth embankment. Where the bottom is upon rock the concrete will be made as a level surface, but where upon earth, it will be given the form of inverted groined arches with a radius generally of 27 feet 9 inches. The minimum thickness of the inverted arches is to be 8 inches and that of the roof arches 6 inches.

Reliance for stability of the outside walls is placed largely on the filling against them rather than upon the construction of the walls themselves. Owing to the fact that a large proportion of the excavation will be of rock, it is designed to use this material largely in the filling. The filling, as a whole is divided into five items: rolled embankment, crusher run, rock fill, earth fill and concrete. The rolled embankment is to be used under the floor and for a few feet above and in contact with the vertical outside walls. Its construction follows the best ordinary practice. The crusher run is to be trap rock broken so that all of it will pass through a 2 1-2-inch ring and shall contain a considerable percentage of fine material distributed throughout it. The crusher run is to be used for the top of the retaining embankments and a layer of it is also placed close to the earth embankments just referred to, the earth and crusher run being mixed for two or three feet along their plane of contact so as to merge gradually from one material to the other. This is in general to be rolled similar to the embankment.

The greater part of the embankments is to be made of rock fill, which will constitute practically all of it where the reservoir is on rock foundation. The rock for this may be of any size, except that for two feet from the concrete wall or other embankment material, no stone larger than 6 inches is to be used, and on the outside the chinks between the large stones are to be filled with smaller ones by hand. This rock fill will be given an outside slope of one to one. The earth fill is to be used largely for covering the top of the reservoir, being given a minimum depth of two feet over the crowns of the

arches. Concrete is to be used in certain places for filling in excavations under the walls and floors.

The wall at one end of the reservoir will contain the conduit in its base, which will be 15 feet wide tapering to 4 feet at the springing line of the arches. The conduit will be 4 feet 10 inches wide at the top and 9 feet at the bottom and have a height of 7 feet 6 inches. All the walls, floors, piers and vaulting will be of concrete.

There is evident throughout the specifications for this reservoir an effort to thoroughly define and classify all the work and to facilitate the understanding of the various clauses. Thus, in the bidding sheet each item for which a price is to be named is numbered and in the specifications the several items are described, reference being made to these numbers. To avoid all disputes as to measurements for rock excavated, clauses similar to the following are employed:

"The minimum thickness of the floor and wall to be allowed in different places are shown on the plans. Excavations to be paid for shall be measured to lines six inches outside of the lines of minimum thickness of wall and six inches below the lines of minimum thickness of floor, and payment shall be made to these lines whether the rock is removed or not. No payment for material excavated outside of these lines shall be made, even though such excavation is actually made.

"The actual amount of rock to be removed and of concrete to be placed outside of the specified lines will depend upon the ability of the contractor to take rock out to the lines given. The contractor shall remove all rock inside the lines of minimum thickness of the floor and walls and such loose rock outside of those lines as may be necessary.

"In measuring the concrete for floor on rock, it is expressly agreed that the thickness shall be taken as six inches greater than the minimum thickness allowed, and this quantity of concrete shall be paid for whether it is placed or not."

The same provision is made in the case of malls in rock excavation.

An unusual provision is that the bidder is required to state what reservoir and masonry work he has done and give references which will enable the Board to judge of his skill and business standing. Other commendable features of the specifications are the inclusion therewith of small printed copies of all the plans, of which there are eleven sheets; and the requirement that

Great care shall be taken to remove the air in the forms. This shall be done by thoroughly churning the concrete after it has been deposited in the forms. Forks, spades or other suitable instruments shall be used for this purpose. These implements shall also be carefully pushed under the pipes in the forms and along all faces of the walls. . . . The forms for all walls shall be of lumber planed on one side and double edged. One edge shall be slightly beveled. This beveled edge shall be placed against the straight edge of the next plank and driven to form a tight joint with an even surface.

Some recent widely-known history is suggested by two clauses. One of these requires that no arch centers shall be struck without the express consent of the engineer and subject to such conditions as will secure the safety of the work, one of which is that two full arches in front have been placed and set. Also the earth filling over any arch shall not be placed until at least five full arches in front are in place. Another such reminiscent clause provides that the contractor "will make no claim for anticipated profits or for loss of profit because of a difference between the quantities of the various classes of work actually done or of the material actually furnished and the said estimated quanti-



## STREET CLEANING IN ST. LOUIS

By CHARLES CLAUDE CASEY

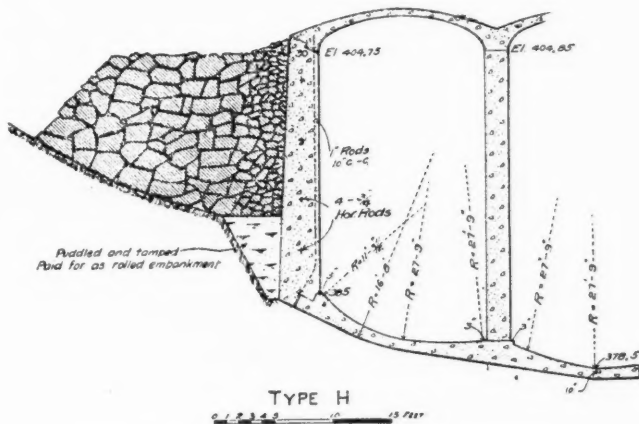
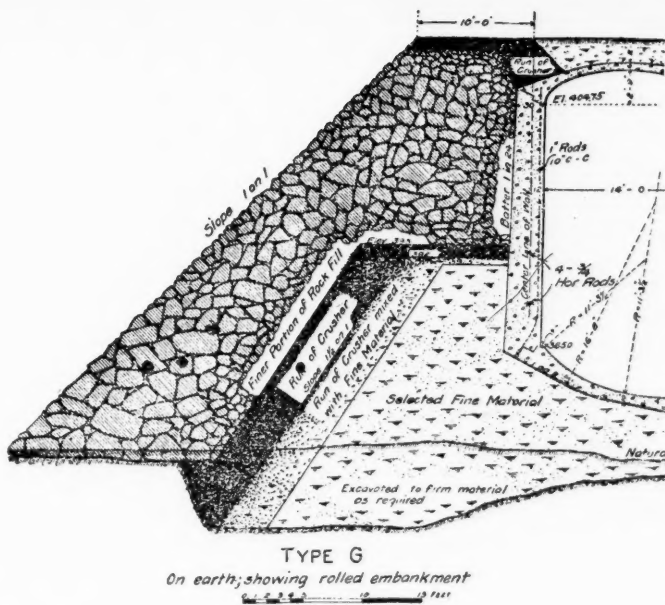
For the administrative purposes of the St. Louis Street Department the city has been divided into four districts, each in charge of an Assistant Superintendent. These Assistant Superintendents report to two Superintendents, one in charge of the "block" cleaning system and the other of machine cleaning, flushing and sweeping. These two Superintendents report to Street Commissioner Travilla or the Assistant Commissioner. The Superintendent of the "block" cleaning system has under his charge about 300 men and thirty wagons; the other Superintendent about 400 laborers and 100 teams, thirty-five of the latter being contract teams and the remainder being owned by the Street Department.

Sixteen flushing wagons in four gangs are employed day and night. A new feature in the street department, since Commissioner Travilla assumed control about a year ago, is an official known as the Dispatcher, who is stationed at the main office in the City Hall and is in constant touch by telephone with the foremen of the several street cleaning gangs, each gang being required to report at certain hours. If the Commissioner or his Assistant or any of the Superintendents wish to know the exact location of a gang, or desires to get into communication with its foreman, this is easily possible through the Dispatcher.

General supervision over all the work is had by the Assistant Commissioner, who carries with him from the office each morning and afternoon a list of every cleaning gang, its location and the names of the Superintendent, Assistant and foreman in charge. He makes his inspection in an automobile, and each of the Superintendents, who are now provided with horse-drawn vehicles, is soon to have the use of an electric runabout to facilitate more complete touch with the work.

During the past winter a new device for the dumping of snow was put into use, which shortens the haul for snow wagons from an average of one-half mile to three blocks. Traps were arranged in the streets  $2\frac{1}{2}$  by 9 feet in size, covered with an iron lid, into which an entire load of snow could be dumped almost instantly. A three-inch, 50-pound pressure water connection, accessible to the driver from the street, almost instantly removes the snow from the hole to the sewer. The dump accommodates two wagons per minute. Four dumps, costing \$400 each, were installed and eight more will be needed next winter.

The block system above referred to and extensively used in St. Louis consists in the assignment of men to certain sections of street which they clean by hand, each having two or three blocks in the business district or four to six in the residence district. With a hand scraper and broom he collects dirt from the street in his territory into a small push cart, which collections are gathered by wagons. About 300 men and thirty wagons clean about 100 miles of street at a cost of \$160,000 a year. Flushing, machine sweeping, etc., cost about \$270,000.



TYPES OF RESERVOIR ENBANKMENT AND MASONRY

ties; and that he agrees that neither the parties of the first part, nor the Board, nor any of them, are held responsible if in the construction of the work any of the said estimated quantities should be found to be not even approximately correct."

## Anti-plague Measures

THE Bureau of Public Health and Marine Hospital Service at Washington, D. C., has published in Public Health Reports for May 29 an article on the measures to be taken to prevent the introduction and spread of plague. After calling attention to the advance of plague throughout the world in the past fourteen years, the preventive measures are recited. These include precautions against plague in persons, personal prophylaxis, quarantine measures against rats, and procedures in cities where plague has made its appearance. The cities should pass anti-plague ordinances regarding garbage disposal and the sanitation of buildings. All holes or drains permitting access of rats to buildings should be stopped up. Special attention should be given to the sanitary condition of stables, granaries, markets and cellars where rats are liable to abound. An active campaign for the extermination of rats should be inaugurated.

A new street cleaning machine, secured from Milwaukee, has been adopted by the Street Department. It operates on a principle new to this country, as instead of a broom the machine contains a rotating roller of sharp-edged rubber slats which scrape the dirt and slime into the gutter. This machine is called a squeegee by the makers, from its similarity to the small hand squeegees used in cleaning windows and other smooth surfaces. The roller is attached to the rear of the truck, is about six feet long and consists of 4x1-inch blades of solid rubber arranged spirally about the roller core. The rubber is stiff enough to hold itself erect and the spiral shape keeps it from bending down or becoming "floppy." The roller rotates as the truck moves forward, scraping the dirt loose and, by reason of the oblique setting of the roller, working it sideways into the gutters. Supported on the truck gear is a 500-gallon water tank, and a connected pipe suspended horizontally between the wheels and under the tank spreads water over the area just in front of the roller, which prevents dust and loosens and softens the dirt. This part of the device, however, has been found to be inadequate when the streets are very dry, and a regulation sprinkler operates ahead of the squeegee under such conditions.

After a month's test, Commissioner Travilla states that this machine not only does better work on smooth pavements than did either the flusher or machine sweeper, but it also saves about 40 per cent. of the cost of cleaning the streets. Cleaning by the flusher cost in St. Louis an average of \$1.00 per great square for the downtown district; while the first month's test shows the squeegee to have done the same work for \$.63, and this could have been reduced to \$.60 by the use of two or three machines in one cleaning squad under one foreman. The advantage would not be so great in a resi-

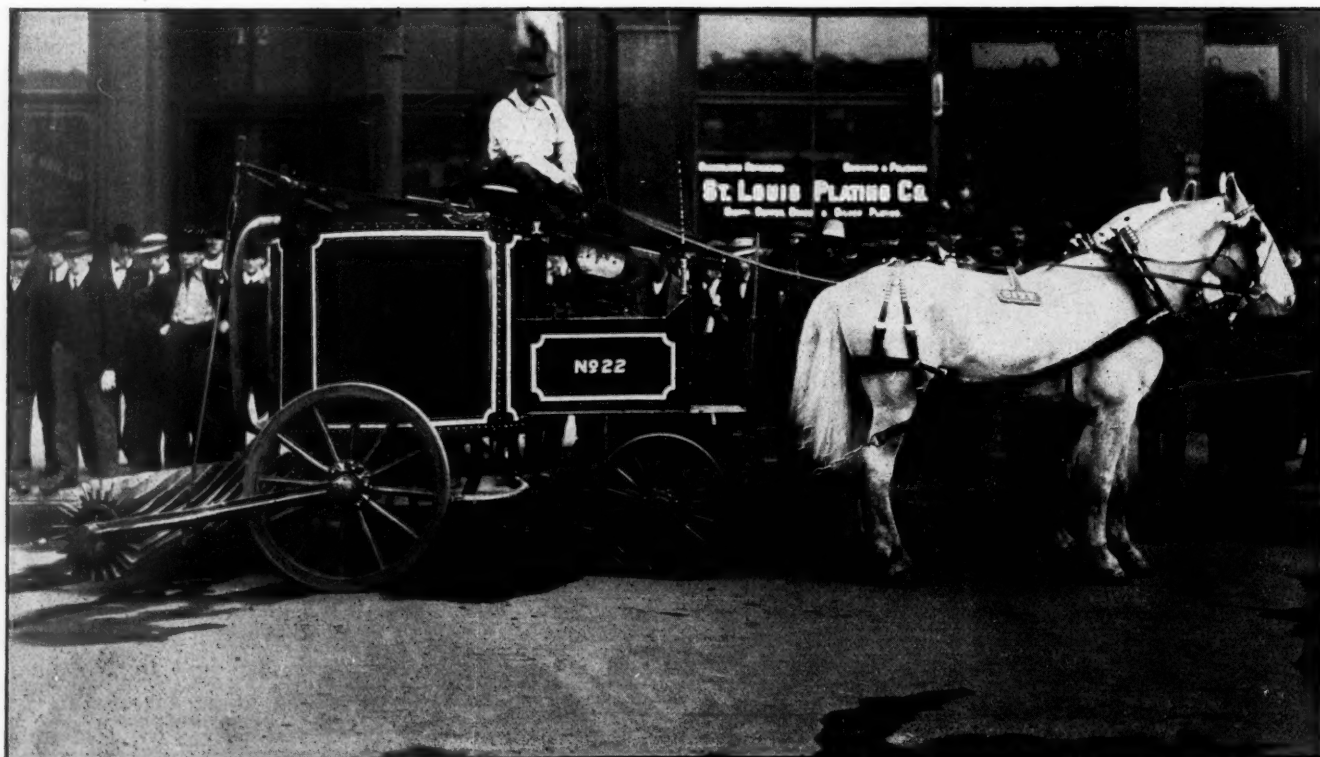
dence district where the flushers work to a better advantage.

An important advantage of the squeegee is the fact that, while in the day time in crowded thoroughfares the flusher would be practically barred because of its tendency to throw water upon the sidewalk when run close enough to the curb to clean the sides of the roadway, the squeegee can thread its way through crowds of vehicles or pedestrians without seriously interfering with them. This machine, however, is practicable for smooth streets only and does not, therefore, replace the flusher on granite or brick pavements.

During its first month's test in St. Louis the squeegee cleaned about 35,000 square yards per day with the following cost: Team and driver, \$6.00 per day; two men with brooms and two cleaning gutters, \$6.00; inspector or foreman, \$2.50; collecting cart with driver, \$4.00; a total of \$18.50 per day. To this must be added \$5.00 for sprinkling wagon and driver when the streets are very dry. This machine was made by the Kindling Machinery Company and cost about \$1,200, not including freight. It is now being tried in New York City.

#### Cost of Paving at Cumberland

THE itemized costs of nine contracts for paving and other street work in Cumberland, Md., during 1907 may be summarized as follows: 20,576.67 feet of straight concrete curb were constructed at prices ranging from 57 to 70 cents per foot, the average cost being 63.9 cents. Of curved curb 561.03 feet were constructed, costing from 65 to 78 cents per foot, the average cost being 70.5 cents. The street paving was of brick on broken stone foundation, with cement grout filler. Of this, 34,080.59 square yards were laid, at prices of from \$1.425 to \$2.04, the average being \$1.78 per square yard.



SQUEEGEE USED ON ASPHALT STREETS IN ST. LOUIS



# MUNICIPAL JOURNAL AND ENGINEER

Published every Wednesday by Swetland Publishing Company

Flatiron Building, Madison Square, New York City

A. PRESCOTT FOLWELL, Editor

I. H. DONNELLY, F. E. PUFFER, Assistant Editors

F. S. SLY, Field Editor

## Business Department

H. M. SWETLAND, President

J. T. MORRIS, Treasurer

M. J. SWETLAND, Secretary

G. E. SLY, Advertising Manager

M. C. ROBBINS, Western Manager, 1664 Monadnock Block, Chicago

Telephone, 6723 Gramercy, New York

## SUBSCRIPTION RATES

United States and possessions, Mexico, Cuba . . . . . \$3.00 per year  
All other countries . . . . . 4.00 per year

Entered as second-class matter, January 3, 1906, at the Post Office at New York, N. Y., under the Act of Congress of March 3, 1879.

## CHANGE OF ADDRESS

To insure the accuracy of our mailing lists, subscribers are requested to notify us of any change of address, giving both the old and new addresses.

It is further requested that our Subscription Department be notified if copies are not received promptly.

Readers are invited to contribute to the MUNICIPAL JOURNAL AND ENGINEER, either in the form of special articles or of letters discussing matters of current interest.

It is also desired that the facilities furnished by the reference library in this office should be widely known and freely used by those interested in municipal affairs. Visitors will be welcomed and provided with conveniences for search, and inquiries by mail will be promptly dealt with.

## REMOVAL NOTICE

The office of the Municipal Journal and Engineer on July 1 will be removed to the Thirty-ninth Street Building, 239 West Thirty-ninth street, New York City.

JUNE 10, 1908.

## CONTENTS

Galveston's Reconstruction (Illustrated).....	729
Pipe Incrustation from Coagulants.....	731
Springfield's Proposed Reservoir (Illustrated).....	732
Anti-plague Measures.....	733
Street Cleaning in St. Louis (Illustrated). By Charles Claude Casey .....	733
Cost of Paving in Cumberland.....	734
A National Board of Health.....	735
Roanoke's City Market.....	735
News of the Municipalities.....	736
Legal News—A Summary and Notes of Recent Decisions.....	741
Municipal Appliances .....	742
News of the Societies.....	743
Trade Notes.....	744
Personals .....	745
Book Reviews.....	745
The Week's Contract News.....	746
Patent Claims.....	753

## A National Board of Health

THE necessity for broader and more comprehensive views of sanitation is being realized more strongly and generally each year. The cabled news of plague in a South American port is immediately followed by precautions in all the other ports of the civilized world. It is now realized that no villages are so small or cities so large as to be independent the one of the other in sanitary matters.

As is natural, the embodiment in law of public sentiment on this subject follows only after a considerable interval of time its formation through the efforts of sanitarians. But great progress has recently been made along this line. One citizen may not now endanger the health of another, and in most States cities are similarly restrained, although to a less degree. But the mutual obligations of cities in different States are not as yet sufficiently recognized by law. It is true that St. Louis was able to sue Chicago for polluting the Mississippi; but the Federal laws fall short of furnishing adequate recourse in such cases. Moreover, what is needed is an authoritative body to control such matters, even when no injured party is ready to incur the expense and trouble of a Supreme Court suit.

The existence and realization of such a need is indicated by the agreement as to pollution of the Delaware between the State Health Departments of New York, New Jersey and Pennsylvania; and other illustrations could be cited. One of the latest of these was the meeting at Grand Rapids, on May 27, of representatives from Illinois, Michigan and Wisconsin to discuss the condition of those cities dependent upon Lake Michigan for their water supply. All felt this to be unsatisfactory, since the same cities discharged their sewage unpurified into the lake. They decided upon a campaign of investigation and education leading up to legislation; it being practically decided that the exact conditions as to pollution of the lake should first be studied most thoroughly.

But such work should not be dependent upon the public spirit or scientific inquisitiveness of private citizens; but the general government, through a competent health department, should collect such data, disseminate such educational information as is needed, and advise the necessary legislation. The formation of such a health department or bureau is urged more and more strongly upon successive Congresses, and will in all probability become a reality ere long. A "Committee of One Hundred" eminent citizens of the United States, which has now far outgrown that number, is striving intelligently and persistently toward this end, and deserves the support of all who realize the urgent desirability of a national health board.

## Roanoke's City Market

THE municipal market building of the city of Roanoke, Va., contains meat stalls, vegetable stalls, fish stalls and an assembly hall. There is also a public scales, for the use of which a small fee is charged. The city also collects a fee known as a curbage fee for wagons which line up along the curb outside of the market. The clerk of the market reports that in 1907 \$2,278.40 was collected as curbage fees from 19,304 wagons. The meat stalls yielded a rental of \$121 per month, or \$1,452; the vegetable stalls \$798.50 for the year and the fish stalls \$408. The charges for the use of gas in the market amounted to \$63 and those for the use of the public scales \$661.50, and for the use of the assembly hall \$155 was received.

## NEWS OF THE MUNICIPALITIES

Divers Subjects of General Interest and Their Treatment by City Councils and Officials—Streets, Water Works, Lighting and Sanitary Matters—Police and Fire Items—Government and Finance

### ROADS AND PAVEMENTS

#### Bridgeport Will Lay Its Pavements

Bridgeport, Conn.—Mayor Henry Lee has carried his point with the Council Committee on Streets and Sidewalks regarding the laying of permanent pavements by the city, instead of by private contract. The Committee has voted to adopt the Mayor's request and to advertise for bids for furnishing the necessary material. During the discussion, Alderman Burnes contended that the city could not do the work as cheaply as a contractor because the city employees worked eight hours a day and contractors' men ten. However, the vote for the trial of the direct labor plan was unanimous.

#### Dust Laying Experiments in New Jersey

Caldwell, N. J.—The Board of Freeholders of Essex county has decided to make rather extensive experiments in dust laying wherever the municipalities will share half the cost. Tarvia has been selected for Roseland avenue, Essex Falls, crude oil for Springfield avenue, Irvington, and dustoline for Bloomfield avenue, Caldwell, and liquid asphalt on Roseland avenue, Caldwell.

#### Paving Brick to Be Made Larger

Davenport, Ia.—As the result of a conference between the Paving Committee of Council and members of a number of paving companies, it has been decided to use larger paving bricks than formerly. Specifications have hitherto called for bricks at least two and a half inches wide, with the result that about all bricks were of that width. Now a three and a half inch brick will be used.

#### Refuse to Bid Under Two Dollars for Asphalt

Harrisburg, Pa.—At a recent letting, the Barber and Warner-Quinlan Paving companies submitted tenders for paving streets where the maximum price had been set at \$2 a square yard, but refused to bid on the streets where the maximum was \$1.80. The representative of the Barber Company, J. Park Rutherford, in explaining his company's position, said that Harrisburg prices were the lowest in the country and that his people had been losing money on the work there for the past five years.

#### To Stop Promiscuous Digging of Streets

Dayton, O.—That the city ought to make all street excavations for contracting plumbers so that the roadways would be restored to proper condition and that contractors delinquent in such matters should not be paid their estimates until they had made their work good, was the opinion expressed at a conference of members of the Service Board with City Engineer Cellarius. The engineer proposes to have a gang of men organized specially for making excavations at a fixed scale of prices, sufficient to allow of good work. This plan is said to give excellent results in Columbus.

#### Rome Goes Bitulithic

Rome, N. Y.—Contracts for all the street paving so far given out were recently awarded to the Warren Brothers under circumstances very flattering to that company. The action of the Board of Public Works and the Common Council was unanimous. Petitions were presented for paving other streets and not a single protest was filed against any of them. All petitions referred to the North James street pavement laid six years ago and expressed a wish for the same material and standard of workmanship.

### City Investigates Proposed County Pavement

Scranton, Pa.—In accordance with a resolution introduced by Select Councilman William J. Matthews, a committee has been appointed to investigate the question of the proposed brick roadway to run across Lackawanna county. The resolution recites that the pavement will cost \$1,000,000, half of which will be assessed on Scranton property, although no portion of the city's streets will be improved. Furthermore, it is stated that city property is assessed at fifty per cent., although boroughs and townships are only assessed at 10 or 15 per cent. of their value.

#### Ordinary Macadam Called a Failure

Syracuse, N. Y.—Macadam pavement can never be successful in New York State, according to Division Engineer Henry B. Brewster, who says that the excessive changes in temperature, together with the varying grades of soil that form the sub-base for the highways make these roads impracticable. The remedy for this condition Mr. Brewster sees in tar macadam, which, he says, can be built for \$2,000 a mile additional. Such roadways, he believes, can be kept in repair for \$50 a mile, as compared with \$300 for ordinary macadam.

#### Must Bid Anew on Paving Jobs

Trenton, N. J.—City Solicitor Charles E. Bird has given an opinion that bids received for paving certain streets with asphalt were informal and must be rejected. The bids failed to comply with the specifications in designating the locality where the asphalt to be used is obtained and also the streets where the material has been laid. The specifications have been criticised because they require 90 per cent. of bitumen and thus exclude the use of Trinidad asphalt, which has hitherto been largely used in Trenton.

### SEWERAGE AND SANITATION

#### Better Supervision of House Connections

Massillon, O.—The Board of Public Service is investigating complaints as to the method in which house connections with sewers are made and are considering the advisability of appointing an inspector to oversee such work. Instances have been cited where contractors have misjudged the location of the lateral at the curbing and have used elbows and curves to bring the pipes together, thus increasing the danger of obstructions. Complaint has been made, too, regarding the laying of pipes through tunnels where the joints cannot be properly cemented. There is some question about the jurisdiction of the Board over the laterals inside of the curb line, but suitable authority could be given by Council to an inspector.

#### Slaughter House Exposé Shocks Philadelphia

Philadelphia, Pa.—The slaughter houses of Philadelphia, which are not inspected by the Federal Government, are declared to be in a frightful sanitary condition by Pennsylvania State meat inspectors. A report shows that there are slaughter houses that appear to be devoted largely to preparing for market meat from diseased animals. It was found that the houses and compartments used for storage were in a dirty condition, favoring the contamination of meat originally wholesome. Conditions are described as worse than those prevailing in Chicago which led to the Federal meat inspection law. The reason for this state of affairs is the insufficient number of inspectors employed by the city.



### Joint Sewage Disposal Plant Proposed

Plainfield, N. J.—Mayor Fisk has written a special message on sewage disposal in which he asks the Aldermen to appoint a committee to confer with the State Board of Health and with the heads of the many towns in the immediate vicinity as to the advisability and practicability of his theories. His suggestion is that a gigantic sewage disposal plant be constructed at a point below New Brunswick by the city of Plainfield, with the aid of North Plainfield, South Plainfield, Fanwood, Scotch Plains, Dunellen, Watchung, Bound Brook, Lincoln, Somerville, Raritan and New Brunswick. The action of the Mayor has been prompted by the request of the North Plainfield authorities for Plainfield to care for its sewage. He finds that to do this it will be necessary for this city to enlarge its sewage contact beds, which must be extended in addition because seven miles more of pipes have been laid within the city limits in the last two months. To do this, he estimates, the city must expend at least \$100,000, and, according to his figures, it will not be long before its own plant will cost Plainfield at least \$500,000.

### Spring Bargains in Sewer Work

Salt Lake City, Utah.—A pleasant surprise for property owners was found at a recent opening of bids for sewer extensions. The bids were far below last year's prices and the engineer's estimate. Contractors state that materials are 30 per cent. below last year's cost, and that labor, which was scarce at \$2.25 per day, is now plentiful at \$1.75.

### Typhoid Unusually Prevalent

Washington, D. C.—Although the customary season for typhoid fever is two months distant, the records of the Health Office show that the disease has been steadily increasing for the past month and at the present time prevails to an unusual extent. The officials of the Health Department are at a loss to account for the early appearance. According to a recent weekly health and mortality report, submitted to the Commissioners by the Health Officer, 93 cases of typhoid fever are under treatment. During the corresponding period last year there were only 52 cases of typhoid.

### WATER SUPPLY

#### Chart Shows Shortage of Water

Baltimore, Md.—An interesting piece of information illustrative of Baltimore's need for the new Gunpowder river reservoir planned to be built under the \$5,000,000 water loan, is shown by a chart prepared by Water Engineer Quick, which gives comparative tracings indicative of the proportion existing between the flow of the Gunpowder river and the daily consumption in the city. The chart covers the period between 1887 and 1907, and shows the condition of the supply and consumption during the drought year of 1900. From the middle of July to the middle of August of that year the chart indicates that the daily flow of the river fell below the consumption to the extent, at times, of 10,000,000 gallons. At that time the daily consumption from this source averaged about 70,000,000 gallons, whereas during the days of severest drought the flow of the river was but 60,000,000 a day. Such periods of drought, Water Engineer Quick has explained, occur in cycles of once in every 11 years, on which basis the next dry season would occur in 1911.

### More Water for Camden

Camden, N. J.—Plans for increasing Camden's artesian water supply have been presented to City Council's Water Committee by Consulting Engineer George Pfeiffer, who built the \$600,000 plant at Morris Station. The plans call for sinking many additional wells adjacent to the present plant. Mr. Pfeiffer is confident that these plans will result in increasing the supply about 6,500,000 gallons daily. The present pumpage is about 15,000,000 gallons.

### New Water Works Increases Rates

Lockport, N. Y.—The Board of Water Commissioners has completed the new tariff of water rates to take effect at once. The increases in every instance are about 25 per cent. and are made because of the new water supply. The new rates for dwelling houses are as follows:

For one hydrant in house .....	\$4.00
For each bath tub .....	3.00
For each wash basin .....	2.00
For one water closet or urinal, self-closing .....	4.00
For each additional water closet or urinal, self-closing ..	2.00
For each water closet or urinal not self-closing .....	10.00
For sprinkling street and lawns of four rods front and under .....	4.00
For sprinkling street and lawns over four rods front ..	8.00
For water lifter .....	6.00
For water motors .....	3.00
For use of water in private stables .....	4.00
For sink .....	3.00

### Credit for Water Used by City Departments

Niagara Falls, N. Y.—One of the first moves of the new Water Commissioners is to install meters in the city buildings in order to get credit for the Department for water for various municipal uses. An old ordinance allows a charge of two cents per 1,000 gallons, but it was never made. In order to make the Department self-sustaining, a charge of three cents may be necessary, a question which can only be determined after measurements have been made.

### Progress of Filtration in Pittsburgh

Pittsburg, Pa.—Although the filtration plant at Aspinwall is now purifying nearly half of the city's water supply, and there has been a decrease in the cases of typhoid as the proportion of pure water in use increased, nevertheless the health authorities continue to caution citizens to drink only boiled water. Thirty of the forty-six filtration beds are completed and are now in use with a daily maximum capacity of 3,000,000 gallons each. The completion of the remainder is promised in four months. The typhoid record for April was, in 1906, 781 cases, 78 deaths; in 1907, 188 and 24; in 1908, 84 and 16.

### Board Wants Report of All Faucets

Trenton, N. J.—The Water Board has under consideration the adoption of a plan to require plumbers to take out a license and to report to the Board all faucets installed in the city. Water rents are paid according to the number of faucets, and it is claimed that many are put in of which the Board has no knowledge. Thus payment of rents are not made. If plumbers were licensed, the Board would know at all times who were putting in faucets, and by receiving reports there would be no further dodging of water rents.

### STREET LIGHTING AND ELECTRIC POWER

#### Underground Wires by New Franchise

Jersey City, N. J.—By a vote of 22 to 1 the Board of Aldermen passed the franchise ordinance of the Mutual Electric Light and Power Company to furnish electric light and power to consumers in Jersey City wholly through underground conduits. The consent to the use of streets is given for a period of twenty years. The maximum rate to be quoted to all customers is eight cents per kilowatt hour, with a five per cent. discount for prompt payment of bills. The company agrees to lay at least ten miles of conduits a year. Upon the expiration of the twenty years all pipes and conduits may become the property of the city upon payment of an amount fixed by arbitrators, which shall not include any sum for the value of the franchise.

#### Four-foot Electric Signs Allowed

Rochester, N. Y.—Acting on a report of the Law Committee whose members have given considerable study to the matter, Council has adopted an ordinance allowing electric signs to extend four feet over the street. A bond of \$4,000 will be required to cover possible damages.

### Investigation of Electric Rates

Buffalo, N. Y.—Quite a number of users of electric light and power in Buffalo have drawn a complaint to the Public Service Commission asking it to investigate the whole question of electric rates in Buffalo. They have invited the Aldermanic Lamp Committee to participate in the expense, guaranteeing, however, that the city's share shall not exceed \$5,000.

### Beacon Light to Advertise Cincinnati

Cincinnati, O.—A resolution has been passed in Council requesting the Board of Public Service to make arrangements for the nightly electrical illumination of the water works tower in Eden Park. The object is to illuminate the tower so that it may be seen for many miles away and that by marking the site of the city in a striking and attractive way it may promote the business interests of Cincinnati.

### Arc Lights Preferred to Boulevard Gas Lamps

Grand Rapids, Mich.—In adopting the budget for the coming year, Common Council killed the proposition recommended by the Board of Public Works' special lighting committee which favored a boulevard gas lighting plan for 500 lights at an annual cost of \$21.84 per lamp for three years, and in its place adopted General Manager Freshney's plan No. 3, which provides for the addition of machinery to the municipal lighting plant and an increase in the number of arc lamps.

## FIRE AND POLICE

### Special Police Pensions Void

Baltimore, Md.—An opinion has been given the Board of Police Commissioners by its counsel, Alonzo L. Miles, that all special acts passed by Legislature during the last ten years granting pensions to members of the Department, are unconstitutional and void. The Commissioners will refuse to pay out money to about thirty employees who have been granted pensions by acts of the Legislature.

### Auto Fire Truck Travels 200 Miles

Irvington, N. J.—Irvington's new auto fire truck has arrived in the town from Springfield, Mass., a distance of nearly 200 miles. The machine came all the way under its own power, making the trip in 18 hours, including stops. On the truck were a driver from the Knox Company, manufacturers of the apparatus; Councilman Dayton O. Meeker, Chairman of the Irvington Fire and Water Committee; Fred W. Dehnert, Fire Chief Herbert J. Groom, Driver Harry Van Houten, Assistant Driver Harry Campbell and Samuel J. Kipp, former Chief of the old Volunteer Fire Department of Irvington.

### To Own Its Telephone System

New Haven, Conn.—Chief of Police Henry D. Cowles has announced that as a result of the investigation just concluded by Commissioners Fertman and Dean, the Police Department will have control of its own telephone system, as soon as the necessary apparatus can be obtained. Up to the present the Police Department telephone apparatus in the 69 boxes throughout the city has been the property of the Southern New England Telephone Company, from whom they are rented at \$5 per annum. In the investigation it was learned that the apparatus may be purchased outright at a little over 50 per cent. for the annual rental fee.

### New Caps for New York Fire Department

New York, N. Y.—Members of the New York Fire Department appeared, June 1, in their new caps. The new official headgear is similar to the caps worn by the German military and not unlike the caps adopted some time ago for winter wear by the Police Department. Lieutenants and Captains have silver chin straps, while Deputy Chiefs and Battalion Chiefs have gold. The tops of the officers' caps, which are slanted, are white, with a white braid three-quarters of an inch wide. Insignia remain the same, one trumpet for Lieutenants and Captains, two trumpets for Deputy and Battalion Chiefs, and an anchor for men on the fire boats.

### Police Revolvers Defective

Newark, N. J.—An inspection of police firearms has been completed by an officer specially delegated for the purpose. Some of the weapons found in use were twenty years old or more and of little value. Few men in the department were found who knew much about the care or handling of revolvers.

### Systematic Tests of Alarm Boxes Planned

Newburgh, N. Y.—The committee of Council having charge of Fire Department affairs has requested Chief Engineer Keefe to confer with his assistants and form a plan by which the circuits of all fire alarm boxes may be regularly tested. The present method of having a test rung in at 12:05 on Tuesdays and Fridays from the electric light station is considered as insufficient. There are some boxes in the city not used once a year, and such boxes might prove worthless when needed.

### Fire Inspection Bureau Ordinance

Salt Lake City, Utah.—An ordinance has been submitted to Council by the Underwriters' Inspection Bureau of the Coast States, which proposes to create the position of Fire Marshal and provide for a number of inspectors. The Chief of the Fire Department is to be ex-officio Fire Marshal, but he will receive no additional pay. The inspectors, who will be paid by the underwriters, will have the right to enter upon premises and enforce the requirements. This plan has been adopted by all the coast cities and has proved of great benefit not only to the insurance companies but to the public at large.

### Two Fire Houses for Each Ward

Scranton, Pa.—If present plans for a bond ordinance go through, eight new fire houses will be built in Scranton this year. This will provide two fire houses for every ward. These additions will place Scranton high in the list of cities of its class in matters of fire protection.

### Sifting Pension Roll

Washington, D. C.—The part of the District appropriation bill which requires the reexamination of police and fire pensioners has been put into effect by the District Commissioners and a blank form containing questions which must be answered and other blanks to be filled by medical examiners has been made out. The rolls now contain 92 policemen and 40 firemen. Officials are of the opinion that the rolls will be minus two or three pensioners when the examinations are concluded.

## GOVERNMENT AND FINANCE

### Why City Received No Bids for Bonds

Birmingham, Ala.—No bids were received in response to an invitation for tenders for \$100,000 of an authorized issue of \$400,000 bonds for sewers. Mayor Ward gives two reasons for the failure to dispose of the bonds. Bond houses, he says, do not like to bid on part of an issue instead of the whole amount. Moreover, the promiscuous selling of bonds by suburban towns has injured the market. For instance, the town of Elyton is understood to have sold some bonds at 86. The North Birmingham issue of \$5,000,000 is also a factor in the situation.

### Status of Veteran City Employees

Boston, Mass.—Mayor George A. Hibbard has appointed a special commission of three members which will consider the problem of the disposition to be made of veteran city employees and declines to discuss the matter as he declined to discuss the resolution of the Aldermanic Board suggesting that he order his department heads to reinstate all laborers over fifty years of age who have been suspended or discharged. The problem of what to do with city employees who have given many years of good loyal service to the city is a complicated one which admits of many arguments pro and con.



### To Consolidate Departments Without Legislative Aid

Boston, Mass.—Since the defeat in the Legislature of Mayor Hibbard's bill, designed to bring about a consolidation of the forty odd departments of the Boston city government, the Mayor has determined to bring about such consolidations as are possible with the aid of the Council and Board of Aldermen. There are sixteen departments that can be reorganized in this way.

### East Orange Adopts New Charter

East Orange, N. J.—At a special election, June 2, citizens decided by a vote of 987 to 499 to adopt the new city charter. All the present officials will go out of office January 1 next. The new Mayor will have increased powers and be able to dismiss employees without charges. Chiefs of the Police and Fire Departments will hold office for life, unless charges sufficient to justify dismissal are proved against them. Many of the effective features of the Galveston, Los Angeles and Des Moines charters were incorporated in the East Orange charter. The Mayor may be recalled if occasion should require.

### Bonds Missed for Thirteen Years

Elwood, Pa.—Ten bonds for \$500 each, issued by the borough of Elwood City in 1895, were found recently in the vaults of the First National Bank. The bonds were sold to George Nield, who reported soon after that he had lost them. The borough refused to pay interest until ordered to do so by the court, after Nield should give suitable indemnity bonds. Nothing was ever heard of the matter until the present time. It is supposed that Nield deposited the bonds for safe keeping and forgot about it.

### Comptroller to Reform Accounts

New York, N. Y.—At the annual meeting of the State Savings Banks Association, which was held recently at the Chamber of Commerce, resolutions were passed calling upon the Comptroller to reform the bookkeeping methods of the Finance Department, in order that the liabilities of the city can be at once determined at any time and that the city may be protected against infidelity or incompetence of its officials and employees.

### Disorderly Conduct Was No Offense

Paducah, Ky.—During the absence of Judge E. H. Puryear from the Police Court it was discovered that there was no statute or city ordinance making disorderly conduct a misdemeanor. The omission has been corrected by an ordinance introduced by Councilman Van Meter.

### Deposit Fund Missing in San Francisco

San Francisco, Cal.—A shortage of \$37,000 in the "special deposit fund," made up of deposits by litigants pending settlement of suits, came to light when City Treasurer John E. McDougal was ordered to pay to the Tax Collector the sum of \$37,572, which had been deposited in 1903 in Judge Seawell's court, pending the settlement of the United Railroads' tax assessment suit. It appears that the special fund, although it has been in existence thirty years, has never been regularly audited. Responsibility for the shortage has not been placed. Although the sum is the amount deposited by the United Railroads, an accounting of the fund by the Grand Jury in 1904 reported the fund intact.

### City Auditor Shows Deficit

Toledo, O.—City Auditor Amos McDonnall has completed a statement showing that the receipts for the year 1907 were \$3,440,780, and the expenditures \$3,591,917, showing a deficit of \$151,136. This shortage comes about through the failure of the departments to keep within their appropriations. There has been a good deal of switching about of funds from one appropriation to another. The Auditor suggests the advisability of making a definite appropriation for the Water Department so that there may be a limit to its expenditures.

### Trust Company Guarantees Sale of City Bonds

Topeka, Kan.—Council has authorized Mayor Green to enter into a contract with the Prudential Trust Company for the sale of improvement bonds. The Trust company agrees to sell 4½ per cent. bonds at par and agrees to purchase such bonds as may not be subscribed for. It further agrees that in the event of the bonds being oversubscribed that small subscribers will be given the preference.

### REFUSE COLLECTION AND DISPOSAL

#### Systematic Collection for Duluth

Duluth, Minn.—At the suggestion of Mayor Haven, an ordinance providing for the systematic collection of garbage has been introduced. Hitherto it has been customary for men to go into the business of garbage collection, charge what they please, come when they please and go when they please, and citizens have had no remedy. The pending ordinance requires that wagons used in the business shall be made of metal and that householders place garbage in sheet-iron receptacles. Licenses will be issued only to men who comply with the ordinance. A schedule giving time for collection will be made out and enforced. Reasonable maximum charges for the service will be fixed.

### New Garbage System Follows Legal Decision

Mansfield, O.—Following a decision in the Common Pleas Court upholding their acts, the Board of Health has closed the contract with the Sanitary Garbage Company. The new company will furnish their own cans for the collection of garbage and when one is taken away a clean one will be put in its place. Emptying garbage on the premises where it is collected is forbidden. The garbage is to be burned and not fed to hogs or cattle.

### Novel Sprinkling Regulations

St. Joseph, Mo.—Councilman Thomas Clark has prepared a sprinkling ordinance which will provide for sprinkling only, not flooding. His plan is to have the wagons stand down a street, sprinkle it for a distance of perhaps fifteen feet, leave an equal distance dry, then sprinkle again. Then on its return the cart is to sprinkle the spaces left dry, thus giving the water first used time to soak in.

### Law for the Dust Nuisance

Williamsport, Pa.—While the majority of the merchants of Williamsport are complaining of the dust nuisance and seem helpless to remedy it, an enterprising citizen has unearthed an act of Legislature passed May 2, 1899, which seems to offer an easy solution of the difficulty. This act provides that if a majority of the property owners on a street want it sprinkled, they may petition Council to that effect and Council must order the work done and the cost collected by assessments on the abutting property.

### PARKS AND OUTDOOR ART

#### Two Moves Toward City Beauty

Holyoke, Mass.—Two important steps in the direction of realizing his ideas of the city beautiful have been taken by Mayor Avery. The first step is along the line of police enforcement of an existing ordinance against the careless disposition of waste paper and rubbish. The second move is to interest the school children, by means of prizes, in the work. To the pupils of the ninth grade prizes have been offered for the best essay on the subject, "What Can the Pupils in the Schools of Holyoke Do to Make their City More Beautiful?" For the best essay of not over 300 words, \$10 will be given; next best, \$8; third, \$5.

#### To Beautify City Hall Court Yard

Philadelphia, Pa.—The City Parks Association has offered a prize of \$100 for the best plan submitted for the beautification of the court yard of the City Hall. The court is surrounded on all its four sides by lofty walls that give it a gloomy effect difficult to relieve.

### Free Fertilizer for Grass Plots

Birmingham, Ala.—Mayor Ward has offered a practical inducement to citizens to make Birmingham a city beautiful. He announced that all householders desiring to plant grass in the space between the curb and sidewalk in front of their residences will be furnished street sweepings with which to fertilize the ground, provided the holes to be filled are not too large. Sweepings will be delivered where wanted on application to the Mayor's office.

### Memphis to Improve Riverside Park

Memphis, Tenn.—At the request of the Park Commissioners, George H. Kessler, consulting architect, in company with John R. Godwin of the Commission, made an inspection of Riverside Park. For months the residents of the southern section of the city have been complaining of the neglect of their part of the city in the way of park improvements. Riverside Park is larger in extent than Overton, although few people know it, because only a few acres have received improvements of any kind. A pavilion, the construction of walks and drives, baseball grounds, golf links and tennis courts are contemplated, along the same lines as have been successfully carried out in Overton Park.

### RAPID TRANSIT

#### Posts Trolley Moral Maxims

New York, N. Y.—Frederick W. Whitridge, receiver for the Third Avenue Railroad Company, having in mind the improvement of the breed of conductors and of passengers on the lines under his charge, has prepared and caused to be displayed in the cars of the Third avenue line two placards conducive to moral uplift. One, based on Mosaic law, of which he is fond, is this:

"THOU SHALT NOT STEAL."

Every Passenger Who Does Not Pay His Fare—Steals.  
Every Conductor Who Does Not Turn in Fares Collected—Steals.

"THOU SHALT NOT STEAL."

A second of Mr. Whitridge's plain samplers for plain people reads this way:

HELP US TO KEEP THESE CARS CLEAN.

Do Not Spit on The Floor.  
Do Not Throw Rubbish or Filth on the Floor!  
Do Not Let Anybody Else Do These Things!  
We Wish to Please the Public!  
We Ask the Public to Help Us!  
Inform Us of Everything Wrong!  
Be Sure Your Complaints Will Be Attended To!

Address the Receiver.

The receiver has also sent the following open letter to all conductors of the line:

I have received far too many complaints of the bad manners of conductors on the roads of this system. It is just as easy to be civil as to be insolent. It is the duty of every public servant, whether conductor, president, director or receiver, to endeavor to be more polite to the public than the public is to him. Conductors will take notice and act accordingly. Any just complaint of any conductor for bad manners will result in immediate discharge.

### The Cleveland Strike

Cleveland, O.—Although efforts to settle the street car strike have been unsuccessful, there is little violence and a large number of cars are being run. The striking employees have adopted political measures to carry their point which apparently is to have the street cars operated for the benefit of members of the old union. They are securing signatures to a petition calling for a referendum vote on the ordinances transferring the Cleveland electric lines to the Municipal holding company. More than 26,000 names have been secured to the petition and they are being checked over carefully by the city authorities to see that the signatures are genuine. In fact, Mayor Johnson is writing to every man on the list asking if he signed the petition.

### Belmont's Opinion on Short-term Franchises

Brooklyn, N. Y.—Before a meeting of the Brooklyn League, August Belmont expressed the opinion that private capital could not construct subways and operate them under short-term franchises. The cost of equipment he says is about half as much as the cost of building the subways and amounts to a sum which cannot be earned in twenty years.

### MISCELLANEOUS

#### Regulating Bill Posting and Distributing

Camden, N. J.—An amendment has been made to the revised ordinance making it unlawful for any person to paint or post advertising matter of any kind in any place in the city or to distribute circulars without first having obtained a license. The license for bill posting is \$50, for the distributing of circulars \$6. No license shall be construed as a permit to post bills on private property, poles, tree boxes or on any part of a public highway. Circulars shall not be placed in yards, doorways, vestibules or on highways or sidewalks.

#### Seeks to Solve Housing Problem

Hartford, Conn.—The committee appointed by Mayor Edward W. Hooker to look into the tenement house problem in the city has decided to confine its activities to the buying of land and the building of suitable houses. A corporation will be formed on the lines of a Washington real estate corporation, which has entered into the cheap house problem with some success. Experimental building will be done in a small way and extended as results justify it. It is believed that houses can be built on a 5 per cent. interest basis and sufficient financial backing secured.

#### Tax on Wire Poles

Pekin, Ill.—An ordinance has been presented in Council providing for a tax of \$1 per year for each telephone, telegraph and electric light pole in the city. It is not intended so much as a measure to produce revenue as a means of reducing the number of dead or useless poles about the city. The tax will apply to all guy poles, as well as the poles carrying wires, and it is figured that a great many poles that are of no use to the company owning them will be eliminated.

#### Sale of "Near-Beers" in the South

Macon, Ga.—Alderman Mayer has introduced an ordinance imposing a license on and throwing restrictions around the sale, both wholesale and retail, of the beverages known as "near-beers." The license for wholesalers is \$250, and for retail dealers \$200. The sale of these beverages is prohibited on Sundays and after 10 o'clock p.m. on other days. Any person holding a license permitting the sale of "near-beer," if convicted of keeping spirituous liquors in violation of the prohibition laws of the State, shall forfeit his license.

#### Promiscuous Distribution of Medicine a Misdemeanor

Sacramento, Cal.—Mayor Clinton L. White has submitted to the Board of Trustees an ordinance prohibiting the free distribution of samples of medicine. In the communication which accompanied the ordinance the Mayor stated that samples of medicine are distributed freely about the city. Many of these contain poisons and deleterious materials. The samples fall into the hands of children. He thought the practice should be prohibited. The ordinance submitted makes it a misdemeanor to distribute medicines and provides as a punishment a fine of \$500 or six months' imprisonment.

#### Authorities Refuse to Muzzle All Dogs

Washington, D. C.—Despite the fact that the District Commissioners are in receipt of a petition from the Veterinary Association of the District of Columbia requesting the compulsory muzzling of all dogs in the city for twelve months, and the fact that similar requests and suggestions have been received by them from individuals from time to time within the past four or five months, the members of the board are adverse in their opinions regarding muzzling. They contend that such an action would not bring about the desired results, and that the only way of handling the question is as they are doing now—diligently impounding all tagless dogs found on the streets, or dogs that give evidences of being a danger to the community. For more than a month an extra wagon and extra laborers have been used in the dog pound service, and the commissioners believe this form of activity will serve the purpose. Dr. William C. Woodward, Health Officer of the District, who has supervision of the dog pound service, is of the same opinion as the commissioners.



## LEGAL NEWS

### Summary and Notes of Recent Decisions—Rulings of Municipal Interest

#### SEPTIC PROCESS FOR TREATING SEWAGE

**Cameron Septic Tank Co. vs. Village of Saratoga Springs et al.**—The Cameron, Commin and Martin patent No. 634,423, for a process of and apparatus for treating sewage as to the process claims, the essential feature of which is the securing of the separate and successive action of anaerobes and aerobes on the organic matter of the solids in a flowing current of sewage by secluding it before its passage into the aerating tanks in a septic tank, where it is excluded from light, air and agitation until by the anaerobic action generated therein all organic matter is dissolved and the entire current liquefied, was not anticipated and discloses patentable invention in the discovery and utilization of a process of nature for a practical purpose. The apparatus claims, which cover the construction and arrangement of the series of tanks, disclose nothing broadly new and are void for lack of novelty. The process claims also held infringed.—United States Circuit Court of Appeals.

#### PERSONAL INJURIES—BILLBOARD

**Bemis vs. City of Omaha.**—In an action for personal injuries against a city by one who claims to have been injured by reason of the overturning, during a windstorm, of a billboard which defendant city had permitted to be erected and maintained close to or upon the sidewalk space, it is not error to admit testimony tending to show that at the time of the injury the board was not securely braced, and that such condition had existed for some twelve months prior thereto. Section 22 of the Compiled Statutes of Nebraska for 1901 does not require an injured person to include within his written notice to the city a statement of the nature and extent of both the accident and injury, but reference to either, with full particulars as to the nature and extent thereof, satisfies the statute on that point.—Supreme Court of Nebraska.

#### BRIDGE—ABUTTING PROPERTY OWNERS

**City of St. Louis vs. Terminal Railway Association et al.**—A city vacated an avenue between designated streets for the construction, by a corporation, of a union station, under an agreement that, should the city by ordinance provide for the building of a bridge over the avenue between designated streets, the corporation would pay into the city treasury a specified sum as part payment of the construction of the bridge. The city adopted an ordinance for the construction of the bridge, over the avenue, between the designated streets, including approaches between the designated streets, as a part of a scheme involving the widening of one of the designated streets. The ordinance authorizing the widening of the street was subsequently repealed. Held, that the repeal of the ordinance relating to the widening of the street rendered the ordinance for the construction of the bridge ineffectual, and the city could not compel the corporation to pay to it the specified sum, since the corporation had the right to know, with reasonable certainty, the general character of the bridge and the approaches before it could be called on to make the payment.—Supreme Court of Missouri.

#### EXECUTIVE AND QUASI-JUDICIAL POWERS

**State ex rel. Heimbarger vs. Wells, Mayor of the City of St. Louis.**—The Constitution distributes the powers in government into three departments—the legislative, executive and judicial—and Article 6 vests the judicial power in the courts of the State. The St. Louis City Charter and the ordinances adopted pursuant thereto empower the Mayor to enforce the laws and ordinances of the city, and to remove officials occupying positions in other departments of the city government on due notice and hearing before him. Held, that the Mayor was not a judicial officer within the Constitution while exercising the power of removing city officers under the charter, his functions being merely quasi-judicial, and the charter provisions empowering him to remove officers were not unconstitutional on that ground. The charter provisions having imposed on the Mayor the duty of seeing that the laws were enforced, the fact that the Mayor's secretary preferred charges against a city official which were heard before the Mayor, or even if the Mayor himself preferred the charges, would not disqualify him from hearing such charges, since it is presumed that he will conscientiously perform the duties imposed by law.—Supreme Court of Missouri.

#### PAVING CONTRACT—FORFEITURE

**Turner vs. City of Fremont et al.**—Where the specifications upon which paving bids were based provided that the City Engineer might make certain tests of the brick to be used at any time during the progress of the work, and that if they did not stand the tests they should be rejected, and required the bidders to deposit samples of the brick on which their bids were based, such samples to be labeled, showing the commercial name of the brick, a statement in plaintiff's bid that he proposed to use "Capital" brick, as per samples submitted, did not work a modification of his proposal to do the work according to the plans and specifications so as to make the quality of his samples determine the quality of the brick to be used, unaided by the tests provided for in the specifications. Where plaintiff refused to enter into a municipal paving contract, after having been declared the lowest bidder, the City Council, by declaring another bidder to be the lowest bidder, without readvertising for bids, did not rescind its finding that plaintiff was the lowest bidder, so as to release his deposit made to secure his entry into a contract. Though, generally, courts do not look upon forfeitures with favor, and will, where the contract is susceptible of so doing, construe such a provision as a penalty rather than liquidated damages, such construction should be given as will carry out the intent of the parties, if such intent is clearly ascertainable from the contract. Where, when a bidder for street paving deposited checks for \$3,700 to secure his entry into a contract on the acceptance of his bids, the damages to the city and the public which would flow from his failure to enter the contract could not be known, on a forfeiture, the deposit must be treated as liquidated damages for plaintiff's default, and not merely a penalty, though the actual damage, as shown by subsequent events, was only about \$2,500.—United States Circuit Court, District of Nebraska.

#### BOND ISSUES—STREETS AND BOULEVARDS

**City of San Diego vs. Potter, Auditor.**—Statutes 1901, authorizing the incurring of expenses by cities, towns and municipal corporations for municipal improvements, including street work, etc., and regulating the acquisition, construction and completion thereof, did not authorize the issuance of bonds except for the purposes for which ordinary revenues of a city might be expended. Under Statutes 1901, authorizing the incurring of expenses and issuing of bonds by cities, etc., for municipal improvements, including street work, and Vrooman act, as amended by Statutes 1891, providing that the City Council may order the whole or any part of the work mentioned therein, which includes street work, paid out of the city treasury from such fund as it may designate, the building and construction of streets, highways and boulevards are objects for which the City Council may in its discretion expend the ordinary revenues of the city, and bonds may be issued for those purposes under Statutes 1901, notwithstanding the existence of act March 19, 1889, authorizing the city to acquire public parks and boulevards.—Supreme Court of California.

#### CONSTRUCTION OF OFFICIAL ACTS

**State ex rel. City of Centralia vs. Wilder, State Auditor.**—Official acts of the plain, average citizens, composing the Board of Aldermen of cities of the fourth class, are not to be viewed hypercritically. They are entitled to every reasonable intent to sustain them; but when the Supreme Court is asked to sustain a \$40,000 bond issue in a small city already indebted more than \$18,000, every step leading up to the issue will be viewed with solicitude and jealousy.—Supreme Court of Missouri.

#### STREETS—ADVERSE POSSESSION

**City of Manchester vs. Hodge et al.**—A city owning land bounded by a street and used as a cemetery holds as trustee for the public the legal title to one-half of the abutting part of the street with the right to use the whole of it for any purpose for which a way to the cemetery could be used. Public rights cannot be lost by adverse possession, and hence one may not acquire rights in a street against a city by proscription.—Supreme Court of New Hampshire.

#### CARE OF SIDEWALKS

**Struble vs. Village of De Witt.**—A city or village is not required to have its sidewalks so constructed and kept in repair as to secure absolute immunity to persons using them; nor is it bound to employ the utmost care and exertion to that end. Its duty under the law is only to use reasonable diligence to keep its sidewalks in a reasonably safe condition for the use of persons passing over them, exercising ordinary care and caution.—Supreme Court of Nebraska.

### PERSONAL INJURY—PHYSICIAN AS WITNESS

**Woods vs. Incorporated Town of Lisbon.**—In an action against a city for personal injuries caused by a defective sidewalk, plaintiff having testified to an operation performed on her because of the injuries, defendant, contending that the operation was made necessary by a previously diseased condition, called a physician to testify relative thereto. The witness had never met the operating physician before the day of the operation, when he met him on his way to the hospital, and found out from him what the operation was to be. There was at no time any consultation between them as to the case. The witness had been employed by defendant to be present at the operation if possible. He was merely an observer, and in no way participated in the work, and it was shown absolutely that the relation of physician and patient did not exist between him and plaintiff. Held, that the witness was not incompetent, under the Code, which provides that no physician shall disclose any confidential communications made to him in his professional capacity, and necessary and proper to enable him to discharge the functions of his office, there being no confidential relation. In an action against a city for personal injuries caused by a defective sidewalk, evidence that the Street Commissioner and one member of the City Council had actual notice of the condition of the walk prior to the accident was competent.—Supreme Court of Iowa.

### FIREMEN—LEGISLATIVE CONTROL—DISCHARGE

**Combs, Mayor, et al. vs. Bonnell.**—While the regulation of the internal local affairs, such as employment of firemen, etc., inheres in a municipal corporation as an incident of its character as a private corporation, and cannot be directly regulated and controlled by the Legislature, it is competent for the State in creating such corporation to provide by what body of the local magistracy such function shall be exercised. Under the Kentucky statutes of 1903, giving the Board of Police and Fire Commissioners full control over the Fire Departments of a city, with authority to make and put into execution by-laws, rules and regulations for the government of such department, and prescribe qualifications of firemen, officers and members of the department, and a rule of the Board of Police and Fire Commissioners regulating the method of suspension and removal of members of the Fire Department, a fireman cannot be discharged without a hearing such as is required by the rules. Where a Board of Police and Fire Commissioners have enacted rules relating to the removal of members of the departments, they cannot, by discharging the whole force of the Fire Department and immediately reappointing all but a few that are intended to be dropped, indirectly accomplish what they cannot directly do, and thus effect a removal of members in violation of rules established by the board under authority of the Legislature.—Court of Appeals of Kentucky.

### POLICEMAN'S BOND—LIMIT OF LIABILITY

**United States Fidelity and Guaranty Co. vs. Milstead.**—The Kentucky statutes of 1903 provide that a policeman shall give bond, with sureties, in the sum of \$1,000, for any unlawful conduct or assault, etc. Section 3752 provides that in an action on any bond given by an officer the recovery against the principal and surety shall not be limited to the penalty of the bond. Held, that the two statutes would be construed together, and that the latter section must be read into the bond, and hence it authorized a judgment against the sureties on such bond for an amount in excess of the penalty of the bond.—Court of Appeals of Kentucky.

### INTEREST IN STREET—OBSTRUCTIONS

**Clymer et al. vs. Roberts et al.**—A deed described the property conveyed as extending to the middle of a certain street, and thence along the middle line of said street. It appeared that at the time the deed was executed such street was not an open street, nor plotted on the city plan. Held, that the grantee took a fee to one-half of the street, with an easement over the ground of the other half. A person taking title to one-half of a street, with an easement over the other half, is entitled to enjoin the erection of buildings on such street.—Supreme Court of Pennsylvania.

### STREET OBSTRUCTION—DITCH

**Smith vs. City of Hayti.**—A city improved the entire width of a street for travel. Thereafter the city dug a ditch across the street, and constructed a bridge over the ditch, leaving a strip of about six feet wide from the bridge to the sidewalk. The ditch between the bridge and the sidewalk was left unguarded. Held, that the city was negligent and liable for injuries sustained to a traveler driving into the ditch.—St. Louis Court of Appeals.

## MUNICIPAL APPLIANCES

### Toy's Street Scraper

A STREET cleaning appliance that combines the uses of a scraper with those of a carrier has been placed on the market by W. M. Toy & Co., Sidney, O. The apparatus consists, as shown in the illustration, of a scoop four feet long, provided with a nine-inch blade. These are mounted on a light truck



STREET SCRAPER WITH WHEELS

of hickory, provided with cast-iron wheels. An iron yoke, hounds, bail and rods serve to support and operate the scoop. The scraper is used like an ordinary scraper, the wheels making it easy to push and less noisy than a simple unmounted blade. When the scoop is full the operator presses the lever on his right, which raises the bail. Then the handle is moved upward until the bail passes the top stop. The handle will then be lowered to its natural position, the scoop will be raised above ground and can be hauled any distance. When the place is reached where it is desired to deposit the load the lever is pressed and the bail thrown off the top stop and dropped below the lower stop. The handle is raised slightly and the scoop turns completely over, as shown in the cut. The empty scraper may be hauled in this position if desired. The manufacturers state that the scraper may be used to advantage in removing snow and ice from sidewalks.

### Daisy Automatic Dryer

A NEW design of automatic sand dryer has been placed on the market by the Daisy Automatic Dryer Co., Pittsburg, Pa. Made especially to furnish sand for railroad use in sanding slippery tracks, it would prove useful for other purposes. Contractors doing outdoor work late in the Fall are often hampered in their work through inability to make mortar from frozen sand. The devices they use to overcome this difficulty are crude and expensive. In paving operations, too, either in supplying sandstone or gravel for paving mixtures or for filling joints of blocks, the new dryer will be useful. The Daisy is a vertical gravity dryer, the sand being fed at the top falling over a series of plates and heated by a fire at the bottom. The feed and fire sections may be used alone, and as many intermediate sections provided with shelves may be used as are desired. The temperature of the sand is regulated by changing the incline of the plates so as to retain sand in the dryer for a greater or less time. As heat is applied directly to the sand, the economy of fuel is a chief merit, the manufacturers claiming that only one-tenth as much heat is used as in a revolving dryer, where the heat is applied to the outer plates of the cylinder. There is no mechanism to wear out and no plates and rivets to burn out. The whole device is of cast-iron.

### Sarco Pipe Coating

THE Standard Asphalt and Rubber Co., First National Bank Building, Chicago, Ill., manufactures a mineral rubber pipe coating which is claimed to protect water pipes from deterioration due to rusting, the action of earth salts and electrolysis. The reason for its superiority as a coating depends largely on the fact that the coating may be applied in a layer 1-32 inch thick and that the layer will adhere to the iron without peeling off. Coal tar and ordinary asphalt paints, owing to their thin or liquid character when hot, cannot be applied in a thick layer, or if applied in several layers are apt not to adhere. The layer of Sarco pipe coating is an insulating material, capable of resisting currents of very high voltage, and thus saves the pipe from deterioration due to electric currents. An interesting test of the resistance to the action of acids was made by the Henry Souther Engineering Co., Hartford, Conn. A piece of sheet steel was given a coating of Sarco, then hung in a house where it was exposed to the fumes of sulphuric acid, hydrofluoric acid and steam. After six weeks not a sign of decomposition or oxidation had occurred, nor had the elasticity of the coating been impaired.



## NEWS OF THE SOCIETIES

**Commission on Vice and Crime.**—The first steps toward the organization of a Commission to be known as the Commission on Vice and Crime were taken at a recent meeting at the New Willard, Washington, D. C. Dr. William White, Superintendent of the Government Hospital for the Insane, was appointed chairman, Rev. J. E. Gilbert secretary and Simon Wolf treasurer. Judge George W. Atkinson presided and stated that the organization was to be national in its character, and hoped to draw under its influence the societies now engaged in various studies of sociology. Rev. J. E. Gilbert read a communication from the American Society of Religious Education and also said: "It is the purpose of this commission to institute, by means of experts, a thorough examination of the causes of crime and vice in their various forms; that the information so obtained be presented by the commission to the public by means of the press, and of meetings held in the larger cities for the purpose of awakening popular interest in this important subject, and that the commission render aid as far as possible to philanthropic, sociological and other organizations, and to State and municipal governments, with the view to promote any worthy measures of reform and legislation looking to the removal of these evils that afflict society." The organization is now composed of Judge George W. Atkinson, United States Court of Claims; Judge W. L. Chambers, of the United States Spanish Treaty Claims Commission; Dr. James E. Gilbert, secretary American Society Religious Education; Major Richard Sylvester, Chief of Washington police; Simon Wolf, late United States Minister to Egypt; Dr. W. A. White, Superintendent of the Government Hospital for the Insane; Brainard H. Warner, late of Washington Loan and Trust Company; Professor William M. Hays, Assistant Secretary of Agriculture; C. J. Faulkner, late United States Senator from West Virginia; Professor Charles Neill, United States Commissioner of Labor; Richard Kingsman, M.D.; Benjamin F. Leighton, Dean of the Law School of Howard University, and Dr. George M. Kober.

**American Association of Medical Milk Commissions.**—At the meeting in Chicago, June 2, legislation against dealers who make an unscrupulous use of the label "certified" in selling milk was urged by Dr. John W. Kerr, Assistant Surgeon-General of the Public Health and Marine Hospital Service, Washington, in an address before the members of the American Association of Medical Milk Commissions. Dr. Kerr declared that the efforts of medical and municipal authorities to improve the supply of milk in the large cities were frustrated by many dealers who labeled common, uninspected milk as "certified." A committee was appointed by Dr. Henry L. Colt, of Newark, N. J., president of the association, to draw up resolutions urging national legislation against the dealers who label impure milk "certified." Dr. E. C. Schroeder, Superintendent of the Experiment Station of the Bureau of Animal Industry of the Department of Agriculture, made the statement that "few human beings wholly escape exposure to bacilli from milk." Dr. Rowland G. Freeman was elected president of the association for the coming year. Dr. Otto P. Geier was reelected secretary and Dr. Samuel McC. Hamill, of Philadelphia, was reelected treasurer.

**Chiefs of Police and City Marshals' Union of Texas.**—At a meeting at Houston, May 18, a number of resolutions were passed as follows: That efforts be made to have the Legislature so amend the juvenile laws of the State as to make them more effective in handling juvenile criminals. That the Legislature be asked to amend the present anti-pass law so that peace officers can receive transportation. It was recommended that the association adopt a secret telegraph code for the use of its members. Also that a uniform size of photographs of criminals be adopted. Following is the result of the annual election of officers: President, Charles McClain, Cleburne; first vice-president, Louis Lowe, Taylor; second vice-president, B. F. Brandenburg, Dallas; third vice-president, George Ellis, Houston; secretary-treasurer, M. T. Forrest, Houston; sergeant-at-arms, O. R. Montgomery, North Fort Worth; mascots, E. T. Bicker and Arthur Forrest; executive committee—J. H. Maddox, Fort Worth; Fred Long, Itasca; John Brown, Weatherford; John Willie, Mineral Wells; W. L. Sallis, Brenham. The next convention will be held in Galveston.

**League of American Municipalities.**—Preparations are being made for the twelfth annual convention of the League of American Municipalities, of which Mayor J. Barry Mahool, of Baltimore, Md., is president. A letter received by Mayor Mahool from John MacVicar, ex-Mayor of Des Moines, Ia., who is secretary and treasurer of the League, stated that the authorities of Omaha, Neb., where the convention will be held this year, have about decided on the latter part of September as the time for the convention. Arrangements are already being made for the topics to be discussed at the convention, and among other subjects the following interesting ones will probably be included in the program: Municipal government by commissions, uniform reports and accounting, street cleaning, street paving, regulation of public service franchises and home rule for cities.

**Public Bath Association of Philadelphia.**—In conjunction with the Civic Club the Association is raising a fund of \$30,000 to purchase a site and build a public bath house in the Seventh Ward. The Association now maintains two such baths, where a small charge is made, and they have been very successful.

**National Good Roads Congress.**—A call has been issued for all interested in good roads to attend the National Good Roads Congress at Chicago, Ill., June 15, and Denver, Col., July 6. The call has been signed so far by the Governors of thirty-two States, the Mayors of fifty cities, the executive officers of the National Grange Good Roads Associations, farmers' leagues and labor organizations, as well as several hundred prominent citizens throughout the country. A committee of 100 has been formed to promote the Chicago meeting. An automobile parade in which it is believed 1,000 machines will enter will be held. Governors and mayors will address the banquet and Vice-President Fairbanks, Ambassador Brice and Secretary Wilson have been invited. The Chicago session will conclude with a banquet.

**International Congress for the Prevention of Tuberculosis.**—The meeting to be held in Washington, D. C., September 21-October 12, will be the greatest gathering ever held in this country in the interest of public health. Every State in the Union is represented in the list of committees and twenty-eight for-

eign countries. Fifteen hundred persons are named on the State committee lists and over 1,250 in the registry for foreign countries. Dr. Edward L. Trudeau has been elected honorary president of the congress and Vice-President Fairbanks, Speaker Cannon and the Governors of the States have been asked to serve as vice-presidents. Two plenary sessions of the congress will be held, one at the beginning and the other at the close, intended principally for the exchange of greetings by the delegates. There will be seven divisions of the congress, and the scientific discussions will take place at the meetings of each.

All the sections of the congress but one will be devoted to the strictly scientific consideration of the tuberculosis problem. The other section will consider it from the hygienic, social, industrial and economic standpoint. Heretofore this phase of the subject has not been considered at international congresses, and it is taken up now because of the wide interest that is being taken in preventive measures, especially in this country. Mr. Edward T. Devine, of New York, the chairman of this section, has arranged a program of unusual interest. The topics which will be discussed under the general subject of "Adverse Industrial Conditions" include tuberculosis as superinduced by or connected with occupations, overwork and nervous strain as factors, the effect of factory improvements on the general health of employees, and the employment of police power in the protection of the life and health of employees. The speakers scheduled to take part in these discussions include well-known specialists like Frederick L. Hoffman, of New Jersey, statistician of the Prudential Insurance Company; Professor John R. Commons, of the University of Wisconsin; Dr. James Alex. Miller, of New York; Mr. A. J. McKelway, Southern secretary of the National Child Labor Committee; Dr. Hermann M. Biggs and Dr. G. M. Price, of New York; Dr. Henry B. Favill and Dr. Alice Hamilton, of Chicago, and Professor C. E. A. Winslow, of the Massachusetts Institute of Technology.

In the discussion of the general subject of social control of tuberculosis addresses will be made by President William F. Slocum, of Colorado College, on "The Best Use of a Large Bequest for the Benefit of Consumptives." Mr. Livingston Farrand, of New York, executive secretary of the National Association for the Study and Prevention of Tuberculosis, will outline "A Comprehensive Program for the Prevention of Tuberculosis; the Relative Functions of Available Agencies," and Rowland G. Hazard, of Peace Dale, R. I., will speak on "Some Economic Aspects of the Free Treatment of Tuberculosis by the State."

It is believed that discussion on the early recognition of tuberculosis and the subsequent treatment of persons affected with it, especially those in whom the disease has been checked, will open up the field to a wide fund of information touching open-air schools, suitable home employments, farm colonies, etc.

There will be sessions devoted to the work done by the visiting nurses; to discussions of educational methods and agencies; to the consideration of measures for promoting immunity from the disease, and for increasing the powers of resistance—such as parks, playgrounds, outdoor sports, physical education.

Prominent settlement workers will take part in the closing session, which will have as its subject "The Responsibility of Society for Tuberculosis." The

speakers named in the program include Jacob A. Riis, of New York; Miss Jane Addams, of Hull House, Chicago; Mrs. V. G. Simkhovitch, of Greenwich House, New York; Rev. Samuel McC. Crothers, of Cambridge; President W. J. P. Faunce, of Brown University, and Mr. Jacob H. Schiff, of New York.

The personnel of the foreign committees is quite interesting, including as it does some of the most famous men in the world, scientists, investigators, medical men of marked distinction and a large number of men in official life of eminent social and political rank. Great Britain takes the lead, so far as numbers are concerned, with a committee of 247 members, of which Sir William Church, ex-president of the Royal College of Physicians of England, is chairman. Sir T. Clifford Allbut, Professor G. Sims Woodhead and Dr. William Osler, formerly of the Johns Hopkins Hospital, constitute the committee on organization.

Among the other members of the general committee are the Countess of Aberdeen, who is at the head of the sub-committee for Ireland; Sir Thomas Barlow, of London, consulting physician to the King's household, and Professor Sir Robert Boyce, member of the Royal Commission on Tuberculosis. The French committee, with a membership of 154 members, comes next, followed by the German list, with 144 members. M. Loubet, the former President of France, is honorary president of the committee for that country. The German committee contains many notable names. That of Robert Koch, the discoverer of the tubercle bacillus, stands preeminent among them. Others in the long list of men of affairs are Victor Prince Hohenlohe and Corvey Ernst von Mendelssohn-Bartholdy, a member of the Prussian Diet, and Dr. von Bethmann-Hollweg, Imperial Secretary of the Interior, and Vice-President of the Prussian Ministry of State.

### Calendar of Meetings

- June 15 and July 6.  
Good Roads Congress.—First national meeting, Chicago, Ill., June 15, and Denver, Col., July 6.
- June 17.  
North West Ohio Volunteer Firemen's Association.—Thirty-fifth annual convention, Napoleon, Ohio.—J. H. Polher, Secretary.
- June 23-26.  
American Society of Civil Engineers.—Annual convention, Denver, Col.—Charles Warren Hunt, Secretary, 220 West Fifty-seventh street, New York City.
- June 23-26.  
American Society of Mechanical Engineers.—Annual convention, Detroit, Mich.—C. W. Rice, Secretary, 29 West 39th street, New York City.
- June 23-26.  
Society for the Promotion of Engineering Education.—(In connection with the convention of the American Society of Mechanical Engineers). Convention, Detroit, Mich.—A. L. Williston, Pratt Institute, Brooklyn, N. Y.
- June 23-27.  
American Society for Testing Materials.—Annual meeting, Hotel Traymore, Atlantic City, N. J.—Edgar Marburg, Secretary, University of Pennsylvania, Philadelphia, Pa.
- June 24-25.  
Indiana State Board of Health.—General Conference, Indianapolis, Ind. Dr. J. N. Hurty, Secretary.
- June 29-July 2.  
American Institute of Electrical Engineers.—Annual convention, Atlantic City, N. J.—Ralph W. Pope, Secretary, 33 West Thirty-ninth street, New York City.
- July 24-25.  
American Society of Heating and Ventilating Engineers.—Summer meeting, Niagara Falls, N. Y.—W. M. Mackay, Secretary, P. O. Box 1818, New York City.

August 10-12.

International Acetylene Association.—Eleventh Annual Meeting, Chicago, Ill.—A. Cressy Morrison, Secretary.

August 25-28.

International Association of Fire Engineers.—Annual convention, Columbus, O.—James McFall, Secretary, Roanoke, Va.

September 21-October 12.

National Association for the Study and Prevention of Tuberculosis.—International Congress, Washington, D. C.—Dr. Henry Barton Jacobs, Secretary, Baltimore, Md.—Dr. Joseph Walsh, Philadelphia, Pa. Special Secretary of the Committee on the International Congress.

September.

League of American Municipalities.—Twelfth annual convention, Omaha, Neb.—John MacVicar, Secretary, Des Moines, Ia.

September.

New Jersey State Firemen's Association. Annual meeting, Atlantic City, N. J.—William Exall, Secretary, 11 Howard street, Newark, N. J.

October 11.

International Roads Congress.—First convention, Paris, France.—President Lehtier, l'Inspecteur General des Ponts et Chaussees.

October 20-23.

American Society of Municipal Improvements.—Fifteenth annual convention, Hotel Dennis, Atlantic City, N. J.—A. Prescott Folwell, Secretary, 511 Flatiron Building, New York City.

November 17-20.

National Municipal League.—Annual meeting, Pittsburg, Pa.—Clinton Rogers Woodruff, Secretary, 705 North American Building, Philadelphia, Pa.

### TRADE NOTES

**Cast-iron Pipe.**—Chicago: Miscellaneous orders comprising small lots have been fairly numerous. Quotations: 4-inch, \$27; 6 to 12-inch, \$26; 16-inch and up, \$25. Birmingham: The output of present producing capacity is taken up for several months in advance. It is reported that three manufacturers will withdraw from the market for July and August deliveries. Quotations: 4 to 6-inch, \$23; 8 to 12-inch, \$22; over 12-inch, average \$21. San Francisco: Bids have been taken for several contracts, and there are some fair inquiries. Quotations: 6 to 12-inch, \$36; 4-inch, \$37. New York: Carload lots, 6-inch, \$24.

**Pig Lead.**—New York: Outside sellers are shading the price to 4.30c. St. Louis market dull at 4.20c. Soft Spanish lead is quoted at £13 55s. in London.

**Cement Plant.**—Contracts for the enlargement of the Crescent-Portland Cement Company's plant at Wampum, Pa., to cost \$850,000, have been awarded to the National Building & Construction Company, of Ellwood City, Pa. Six new buildings will be erected and the capacity will be increased from 300 barrels to 3,000 barrels a day. The new buildings will be of concrete construction, with structural steel trusses and cement tile roof. The improvement program includes the following: Kiln building, 120x200 feet; raw grinding building, 280x100 feet; dry grinding building, 240x100 feet; coal pulverizing building, 100x70 feet; stock house, 500x70 feet; machine shop and office building. Plans were prepared several months ago.

**Power Company.**—The Juniata Water and Water Power Company, whose hydro-electric plant is located at Warrior Ridge, have contracts to supply the citizens of the following towns with electric current for light and power purposes: Altoona, Bellwood, Tyrone, Petersburg, Alexandria and Huntingdon. A number of towns east of Huntingdon have applied for electric service from the big plant, and will be taken on as soon as

the necessary line construction can be completed, and before long the entire Juniata Valley from Altoona to Lewistown will be deriving light and power from the waters of the Juniata.

**Pump Test.**—An official test recently made on two Allis-Chalmers screw pumping engines, together with four centrifugal pumping units installed in the Thirty-ninth street pumping station of the Sanitary District, Chicago, Ill., resulted in the award of a bonus to the maker of about \$100,000. The contract called for 95,000,000 ft.-lb., while the test developed a duty of 145,000,000 ft.-lb. A bonus of \$1,000 was offered for every 1,000,000 ft.-lb. in excess of the contract price, that sum representing but a small proportion of the saving in operating expenses to be effected by every 1,000,000 ft.-lb. increase in the engines' efficiency; it is figured, therefore, that, despite the large bonus to be paid, the Sanitary District is the gainer under the contract. The installation represents an aggregate maximum capacity of 2,160,000,000 gallons of water and sewerage every twenty-four hours. The test was run under the direction of Henry A. Allen, representing the Sanitary District; Louis E. Strothman, of the Allis-Chalmers Company, and W. E. Jennings. Twenty observers checked up the work for the Sanitary District and sixteen others were present representing the contractors.

**Dust Laying.**—At a special meeting of the Street Committee of Caldwell, N. J., May 19, held to decide on a system of dust-prevention this summer, the committee appointed to investigate the economy and effectiveness of asphalt oils and other dust-layers recommended the use of Dustoline, the new odorless dust-preventive, as used on the streets of Summit and Morristown, N. J. The New Jersey Dustoline Company, of Morristown, was awarded the contract for laying the dust at Caldwell for the season of 1908.

**Mercury Plumb Bob.**—The L. S. Starrett Company, with offices at Athol, Mass., and 132 Liberty street, New York City, is marketing its improved mercury plumb-bob. The principal improvement is a patented device for carrying and fastening the string without a knot to tie or untie, by merely drawing the cord into the peculiarly slotted neck at the top, after unwinding the necessary length, when the bob will hang perfectly true. The plumb bobs are made from solid steel, bored and filled with mercury, there being a tight fitting screw cap inside to keep the mercury intact. Leading characteristics of this construction are the great weight in proportion to size, low center of gravity, small diameter, hardened and ground points, knurling on the body and the simple yet effective device at top for fastening up the cord, so that the latter is always conveniently at hand, but not in the way. Regularly each bob has 8 feet of a specially imported braided silk line and the goods are polished and nickel-plated. The No. 87 style, mercury filled, is made in 4, 5 and 5 1-2 and 6-inch lengths, with diameters of 1-2, 5-8, 3-4 and 7-8 in., weighing respectively 3 1-2, 6, 12 and 16 ounces. Another plumb-bob, similar in appearance, No. 177, is made from solid steel and of the same outer dimensions, but weighing 2 3-4, 5 8 1-2 and 14 1-2 ounces respectively.

**Removal Notice.**—The Indian Refining Company, Georgetown, Ky., manufacturers of liquid asphalt for roads, has removed its general offices to the First National Bank Building, Cincinnati, O.



## PERSONALS

COLLINS, JOHN M., Chief of Police of Chicago, Ill., under Mayor Edward F. Dunne, and ex-Police Attorney Frank Comerford, who were charged with using the members of the police force to further the reelection of Mayor Dunne at the last election, have been acquitted of the charge of conspiracy.

DEUTSCHBEIN, H. J., Deputy City Engineer, has been appointed Superintendent of Water Works of Albany, N. Y.

ERICSON, JOHN M., Am. Soc. C.E., City Engineer of Chicago, Ill., has been offered the position of Director of Public Works of the city of Stockholm, Sweden.

FILER, HARRY B., Newark, N. J., Chief Forester for the Shade Tree Commission, has been appointed City Forester, at a salary of \$150 a month, by the Board of Park Commissioners, Buffalo, N. Y.

GRIFFIN, JAMES, Montreal, P. Q., for fifty-four years an employee of the city, most of which time he has been head foreman of the westerly division of the city, has resigned. The resignation was accepted with regret, and the retiring foreman presented with three months' salary.

HIBBARD, GEORGE A., Mayor of Boston, Mass., with Deputy Commissioner Carruth and Trustee Mary A. Dierkes, of the Pauper Department, and Trustee Mary Boyle O'Reilly, of the Children's Department, recently made an inspection of the institutions at Deer Island, Long Island and Ramsford Island, down the harbor.

HOLSTEIN, H. A., Titusville, Pa., has been re-elected City Engineer for a period of three years, by a unanimous vote of the Councils.

HOWE, WALTER C., Oakland, Cal., has been appointed Superintendent of Streets, vice Leo J. McCarthy, resigned. Mr. Howe is a civil engineer of ten years' experience, and a graduate of the University of California.

HUFT, RUDOLPH, Committee Clerk of the Council of New Orleans, La., has left for a vacation trip which will include Cincinnati, Louisville and St. Louis, and will be away thirty days.

MADDEN, DR. WALTER, Mayor of Trenton, N. J., has named Henry C. Buchanan, Joseph M. Middleton and Dr. Martin W. Reddan as a committee to cooperate with a like committee to be appointed by Robert A. Messler, President of the Chamber of Commerce, in considering the matter of public baths.

MARKHAM, CAPT. EDWIN, Assistant Engineer Commissioner of the District of Columbia, and Conway B. Hunt, Engineer of Highways, have gone to Kansas City, Mo., where they will inspect the application of earth oil on roads and the working of an asphalt patching machine, and to Chicago, Ill., to inspect bitulithic pavements.

MEAD, GEORGE E., has been made Chief of the Fire Department of Perth Amboy, N. J., to succeed Eugene Mullen, who was presented with a solid gold ex-Chief's badge, and George T. Larson and Theodore Anderson have been made Assistant Chiefs.

NORMENT, CLARENCE F., Washington, D. C., has been elected President of the Washington Railway and Electric Company; Ward Thoron, First Vice-President, and Allan L. McDermott, former President, as Special Counsel of the company; other officers remain as before, with Gen. George H. Harries as Second Vice-President.

PERKINS, COL. CHARLES E., of Akron, O., has been reappointed Chief Engineer of Public Works of Ohio.

PIPER, ELMER E., City Surveyor of Hagerstown, Md., has been reappointed by Mayor Hammond and confirmed by Council; R. L. Van Devanter as Tax Collector,

the compensation being 5 per cent. on all taxes collected; Benjamin M. Diehl as Electrician, and Harry M. Brining as Clock Winder; Robert Case was named for City Clerk and J. F. Ziegler for Market Master, and both were rejected by a vote of three to two.

PRESTON, J. M., Dallas, Tex., has been appointed City Engineer, to fill the vacancy caused by the resignation of E. L. Dalton.

SCHWIERING, HENRY, Water Commissioner of Hoboken, N. J., with E. D. Bodenstein and Thomas Bogelman, have sailed for a two-months' tour of Europe, and will visit all the principal cities, making the trip by automobile.

SMITH, ROBERT A., Mayor of St. Paul, Minn., for fifteen years, the last eight of which have been consecutive, has retired from public office, after nearly a half-century of service, and was presented with a substantial purse, contributed by members of all parties, which will enable him to live his declining years in comfort, he having reached the age of eighty-one years.

SNOWDEN, COL. A. LOUDON, President of the Fairmount Park Association, Philadelphia, Pa., has been re-elected; also former Justice Samuel G. Thompson, as Vice-President; James Elverson, Sr., Treasurer, and Thomas S. Martin, Secretary.

## BOOK REVIEWS

**The Architects' and Builders' Pocket Book.** Fifteenth Edition, Revised. New York: John Wiley & Sons. 16mo, 1703 pages, 1,000 figures. Morocco, \$5. This book is designed to be a reference book containing some information on every subject likely to come before an architect, structural engineer, draughtsman or builder, including data for estimating the approximate cost. It presents all information in a simple and convenient form, and to this end sets forth many tabulations of useful data. Part I, occupying 98 pages, contains a review of such mathematical subjects as are likely to be needed by an architect, as well as tables of weights and measures, sines and cosines, and various trigonometrical formulae and tables. Part II deals with materials and stability of structures, treating in turn of foundations, retaining walls, masonry, piers, arches, bending moments, moments of inertia and resistance, resistance to tension, resistance to shearing, brackets, columns, beams, continuous girders, wooden floors, mill and warehouse construction, fireproofing, reinforced concrete, roof trusses and wind stresses in towers and high buildings. Part III deals with scientific and technical subjects. Some of the topics are: Fuel, steam heating, ventilation, private water supplies, tanks, plumbing, lighting, weights of structural materials, plastering, carpenter work, building papers, paints, glass, cost of buildings per square and cubic foot. Considerable miscellaneous information such as form of contracts, trade references, information about notable buildings, and a glossary close the work. The changes in the Fifteenth Edition include correction of typographical errors and the rewriting of some chapters by Rudolph P. Miller, of the New York Department of Buildings. A chapter on reinforced concrete, wholly new, is by Mr. Miller. Professor Alvah H. Sabin has brought the section on paints and varnishes up to date.

**"How to Burn Illinois Coal Without Smoke."** By L. P. Breckenridge. Be-

ing Bulletin No. 15 of the Engineering Experiment Station of the University of Illinois. The first edition of this bulletin was published in December, 1907, but on account of the large number of requests for it, a second edition of 10,000 copies has just been issued. A large number of the copies already distributed were requested by the smoke inspection departments of many of our large American cities. A few pages are devoted to the principles of combustion and the losses due to smoking chimneys, but the larger part of the bulletin relates to the constructive features of those boiler settings and furnaces that have been found practically smokeless in operation at the power plant and in the experiment station at the University of Illinois. The leading dimensions of the settings and furnaces are given and sectioned cuts show the general character of the settings. While the smokeless burning of Illinois coals furnishes the main discussion, the principles and methods explained apply equally well to the burning of all kinds of soft coal. Copies of this bulletin may be obtained gratis upon application to the director of the Engineering Experiment Station, Urbana, Ill.

**Proceedings of the Providence Conference for Good City Government and the Thirteenth Annual Meeting of the National Municipal League.** Clinton Rogers Woodruff, Editor. National Municipal League, 1907.

This volume contains the papers read at the Providence meeting, held November 19-22, 1907. The papers are: "Government by Public Opinion," Hon. Charles J. Bonaparte; "The Battle for Betterment," Clinton Rogers Woodruff; "The Galveston Plan of Government," Prof. William Bennett Munro; "The Des Moines Plan," Silas B. Allen; "The Newport Plan," Rear Admiral F. E. Chadwick; "How Chicago Is Winning Good Government," George C. Sikes; "The Evil Influence of National Parties in Municipal Elections," Hon. Brand Whitlock; "Separation of Elections," Thomas Raeburn White; "Separation of Elections in Massachusetts," Richard L. Gay; "Outline of a Model System of State and Local Taxation," Lawson Purdy; "Report of the Committee on Taxation, Taxation of State and Municipal Bonds," Arthur B. Chapin; "Exempt Money and Credits from Taxation," J. H. Easterday; "Taxation of Public Service Corporations," Allen Ripley Foote; "The General Property Tax," Dr. Delos F. Wilcox; "Substitutes for the Personal Property Tax in Cities," Prof. Charles E. Merriam; "The Taxation of Savings Banks," Charles E. Sprague; "The Effectiveness of Taxation," Hon. Frederic N. Judson; "Taxation of Life Insurance," Edward L. Heydecker; "Taxation of Railways," Henry T. Newcomb; "Taxation of Railroads," Hon. Frederic C. Howe; "Work for Personal and Public Hygiene in Rochester," Dr. George W. Gales; "Sanitation in Providence," Dr. Charles V. Chapin; "Notes on the Board of Health of Montclair, N. J.," M. N. Baker; "Chicago's Municipal Sanitation," Dr. William A. Evans; "Health and Sanitation in the District of Columbia," William Creighton Woodward, M.D.; "Public Health and Municipal Sanitation in Cleveland," William Travis Howard, M.D.; "The Relation of Municipal Sanitation to the State and the National Government," Dr. Charles O. Probst.

## THE WEEK'S CONTRACT NEWS

Relating to Municipal and Public Work—Street Improvements—Paving, Road Making, Cleaning and Sprinkling—Sewerage, Water Supply and Public Lighting—Fire Equipment and Supplies—Buildings, Bridges and Street Railways—Sanitation, Garbage and Waste Disposal—Police, Parks and Miscellaneous—Proposals and Awards

To be of value this matter must be printed in the number immediately following its receipt, which makes it impossible for us to verify it all. Our sources of information are believed to be reliable, but we can not guarantee the correctness of all items. Parties in charge of proposed work are requested to send us information concerning it as early as possible; also corrections of any errors discovered.

### BIDS ASKED FOR

STATE	CITY	RECEIVED UNTIL	NATURE OF WORK	ADDRESS INQUIRIES TO
<b>Street Improvements</b>				
Indiana.....	Laporte.....	June 11, 11 A.M.	Constructing macadamized road in Michigan twp.	Charles H. Miller, Co. Auditor.
Indiana.....	Hentland.....	June 11, 1 P.M.	Cement, gravel, crushed stone, etc., for macadam roads.	Alonzo E. Pourkey, Co. Auditor.
Wisconsin.....	La Crosse.....	June 11, 2 P.M.	Macadam paving, Vine St., bet. 6th and 12th Sts.	H. J. Beckwith, Pres. B. P. W.
Wisconsin.....	Newburg.....	June 11, 2 P.M.	Constructing 3,840 sq. ft. cement sidewalks.	Chas. O'Connor; Nick Schumann.
Wisconsin.....	Janesville.....	June 11, 2 P.M.	Laying 3,000 sq. yds. granite macadam. St. Lawr. Ave.	C. V. Keich, City Engineer.
New York.....	Brooklyn.....	June 11, 3 P.M.	Asphalt paving on concrete, etc., Prospect and other parks.	Henry Smith, Pres. Park Board.
Illinois.....	Downers Grove.....	June 11, 8 P.M.	Vit. brick paving, 13,304 sq. yds.; com. curb and gutter, 9,897 lin. ft.; earth exc. and grading, 7,500 cu. yds., etc.	J. W. Hughes, Pres. Bd. Loc. Imp.
Missouri.....	St. Louis.....	June 12, noon	Repairing wharf with granite blocks.	A. J. O'Reilly, Pres. Bd. Pub. Imp.
Ohio.....	Cincinnati.....	July 12, noon	Asphalt resurfacing, readjusting curbs, etc., 3 sts.	John J. Wenner, Clk. B. P. S.
Washington.....	Olympia.....	June 12, 2 P.M.	Clearing, grubbing and grading 2.81 miles State Road No. 9.	Jos. M. Snow, State Hwy. Bd.
New York.....	Olean.....	June 12, 8 P.M.	Improving North Fourth St., macadam, curb, etc.	E. E. Allen, City Engineer.
Michigan.....	Scottville.....	June 12, noon	Grading, curb, brick or macadam, 4,428 sq. yds.	W. C. Freedy, City Clerk.
Dist. of Col'bia.....	Washington.....	June 13, noon	Grading Mass. ave. ext.; filling approaches to viad. N. E.	Jay J. Morrow, Eng'r Com'r.
Florida.....	Fort Rancocas.....	June 15, 11 A.M.	Constructing concrete walks.	Capt. D. W. Hand, U. S. Army.
Ohio.....	Lockland.....	June 15, noon	Cent. curb, gutters, etc., Ruffner St.	C. E. Troy, Village Clerk.
Dist. of Col'bia.....	Washington.....	June 15, noon	Asphalt block and bitu. pavements, macadam roads, concrete walks, Walter Reed, Army Gen. Hosp.	Capt. H. L. Pettus, Q. M., U. S. A.
Alabama.....	Montgomery.....	June 15, noon	Paving, any material, N. Court St. from Pollard to city line.	A. R. Gilchrist, City Engineer.
Ohio.....	Bowling Green.....	June 15, 1 P.M.	Grading, curbing, macadamizing road 5 miles long.	F. W. Toan, County Auditor.
Illinois.....	Mt. Carmel.....	June 15, 2 P.M.	Constructing 3,000 ft. brick paving; also sewers.	Guy W. Couster, City Eng'r.
Michigan.....	Charlotte.....	June 15, 4 P.M.	Furn. mat. and paving on concrete with asphalt filler, and grading Lawrence Ave. and Lovett St.	Claude E. Fisher, City Clerk.
New Jersey.....	New Brunswick.....	June 15, 8 P.M.	Improving 28,000 sq. yds. street paving, 2,800 lin. ft. curb, etc.	John T. Kemp, St. Com'r.
New York.....	Herkimer.....	June 15, 8 P.M.	Paving 40,000 sq. yds. various sts. and aves.	Wm. Wright, Jr., Clk. Bd. Trus.
Mississippi.....	Clarksdale.....	June 15, noon	Bldg. 5 miles sidewalks with curb, etc., concrete.	W. G. Kirkpatrick, Jackson, C. E.
Iowa.....	Fort Dodge.....	June 15, noon	Comb. curb and gutter, 50 or more blocks, 1st Ave., 17th St.	C. H. Reynolds, City Engineer.
New Jersey.....	Freehold.....	June 16, 11 A.M.	Constructing stone road 17,497 ft. long.	Geo. W. Paterson, Clk. Freeholders.
Pennsylvania.....	Harrisburg.....	June 17, noon	Constructing roads, 47,583 ft. long in 3 counties.	Jos. W. Hunter, St. Hwy. Com'r.
Ohio.....	Delaware.....	June 18, noon	Brick or asphalt paving, etc., W. Lincoln Ave.	R. M. Swickheimer, Clk. B. P. S.
Ohio.....	Coshocton.....	June 18, noon	Bldg. 6 highways; brick, macadam, etc.; \$1,000 check.	E. M. Norman, Sec'y Dist. Rd. C'mrs.
Ohio.....	Mt. Gilead.....	June 18, noon	Brick or block paving, grading, curb, etc., 2 sts.	W. F. Wieland, Village Clerk.
Tennessee.....	Johnson City.....	June 18, 4 P.M.	Paving 21,000 sq. yds., 6,100 lin. ft. concrete curb, etc.	L. N. Wilson, City Engineer.
Pennsylvania.....	Harrisburg.....	June 18, noon	Improving 3 stretches: Jonestown road, 16 ft. wide; 3,450 ft., 5,855 ft., and 8,350 ft. long, inc. 2 bridges.	Jos. W. Hunter, St. Hwy. Com'r.
Pennsylvania.....	Belleville.....	June 19, noon	Bldg. 7,560 ft. Osceola road, 7,507 ft. Tyrone Pike, Rush twp.; 6,044 ft. road, Harris twp., Center County.	Jos. W. Hunter, Har'sb'g. S. H. C'mr.
Dist. of Col'bia.....	Washington.....	June 20, noon	Macadam roads, asphalt block paving, etc.	Capt. H. L. Pettus, U. S. Army.
Wisconsin.....	Oshkosh.....	June 20, noon	Asphalt paving, grading, curb, etc., Jackson St.	W. A. Marden, Chm. Bd. Pub. Wks.
Pennsylvania.....	Butler.....	June 20, noon	Constructing 15,000 ft. road, Butler twp., Butler Co.	Jos. W. Hunter, Har'sb'g. S. H. C'mr.
Ohio.....	Warren.....	June 22, noon	Asphalt block paving, etc., Elm St.; vit. brick, N. Tod Av.	E. M. Milligan, City Eng.
Alabama.....	Selma.....	June 22, noon	Brick and asphalt paving, granite and comb. curb, etc., 2 sts.	Julien Smith, City Engineer.
South Dakota.....	Aberdeen.....	June 22, 8 P.M.	Brick or asphalt paving, certain streets.	F. W. Raymond, City Auditor.
Florida.....	Fort Dade.....	June 22, 8 P.M.	Constructing brick roads.	Constructing Quartermaster.
New Jersey.....	Toms River.....	June 23, noon	Bldg. gravel road 3 miles long in Plumstead twp.	I. H. Cramer, Cedar Run, Eng'r.
Ohio.....	Cadiz.....	June 24, noon	Brick paving, 10,427 sq. yds.	W. H. Lucas, Town Clerk.
New York.....	Madison B'rcks.....	June 24, 2 P.M.	Bldg. 86,000 sq. ft. macadam road, resurfacing 14,500 ft. of road, bldg. 32,500 ft. concrete sidewalks.	Constructing Quartermaster.
Indiana.....	Indianapolis.....	June 24, noon	Bldg. gravel road, 3.97 miles long, bet. 2 Cos.	Albert Sahn, County Auditor.
Pennsylvania.....	Harrisburg.....	June 24, noon	Bldg. 3 roads, 21,996 ft. long, in Lebanon Co.	Jos. W. Hunter, State Hwy. Com'r.
Ohio.....	Cincinnati.....	June 26, noon	Improving Blue Rock pike in Green & Colerain Co.	Fred Dreihls, Clk. Co. Com'rs.
Pennsylvania.....	Harrisburg.....	June 29, noon	Bldg. 3 roads, 31,070 ft. long, Wash'tn Co., 7,140 ft. Western	Jos. W. Hunter, State Hwy. Com'r.
Pennsylvania.....	Harrisburg.....	June 30, noon	Bldg. 4 roads, 25,919 ft. long in Clinton & Cambria Cos.	Jos. W. Hunter, State Hwy. Com'r.
Florida.....	Fort Barrancas.....	July 1, 11 A.M.	Constructing new and resurfacing old roads.	Capt. D. W. Hand, U. S. Army.
<b>Water Supply</b>				
New York.....	Rome.....	June 10, noon	Furn. 3,745 net tons c. i. pipe, 12 tons specials.	Knight & Hopkins, Eng.
Minnesota.....	Leech Lake Agcy.....	June 10, 2 P.M.	Constructing artesian well and pump.	Com'r Ind. Affrs, Wash., D. C.
New York.....	Brooklyn.....	June 10, 2 P.M.	Hauling and laying pipe, etc.; furn. and del. pipe, fittings, boiler tubes, etc.; also supplies for pumping stations, reservoirs and repair yards; also laying pipe, etc., Boro Richmond.	John H. O'Brien, Com. W. S., G. & E.
Maryland.....	Baltimore.....	June 10, noon	Bldg. 225,000,000-gal. high-service reservoir and diversion sewer, inc. 687,000 cu. yds. exc., 282,000 cu. yds. rolled embankment; 2,000 cu. yds. cement, etc.	J. Barry Mahool, Mayor.
Minnesota.....	Springfield.....	June 12, 8 P.M.	Constructing waterworks system and outfall sewer, inc. 3 miles c. i. pipe, 75,000 gal. steel tank and 120 ft. tower.	A. Frederickson, Vil. Recorder.
Louisiana.....	Fort St. Philip.....	June 15, 10 A.M.	Constructing water and sewer systems at post.	Capt. Arthur Cranston, U. S. Army.
New York.....	Fort Hamilton.....	June 15, 11 A.M.	Extension of water and sewer systems.	Constructing Quartermaster.
Oklahoma.....	Edmond.....	June 15, noon	Furn. material and machinery for complete water works system, inc. two 125 h. p. tubular boilers, two duplex steam pumps, straight-line air compressor, feed-water heater, two boiler feed pumps, 25 fire hydrants, 15 gate valves, 250 tons c. i. pipe.	O'Neill Eng. Co., Dallas, Tex.
Connecticut.....	Unionville.....	June 15, 2 P.M.	Bldg. concrete and earthen dam for Un. Water Co., inc. 922 cu. yds. concrete, 822 earth exc., 425,0 filling, etc.	W. A. Hitchcock, Treas. Water Co.
British Col'bia.....	Victoria.....	June 15, 4 P.M.	Furn and laying steel riveted pipe; furn. and install, 2 electric-driven power pumps in Yates St. pump station.	W. W. Northcott, Pur. Agt. The Mayor.
Cuba.....	Cienfuegos.....	June 15, noon	Furnishing c. i. water pipe.	A. Herrmann, Pres. W. W. Trus.
Ohio.....	Cincinnati.....	June 16, noon	Laying c. i. pipe, etc., on Queen City Ave., etc.; 8,800 ft. 16-in.	J. J. Hackney, Mgr. Water Works.
Ontario.....	Guelph.....	June 16, noon	Teaming, exc. laying, back-filling, for 24-in. earthenware water conduit, 20,000 ft. long; also for c. i. pipe.	J. C. Clifford, Supt. Indian Sch.
North Dakota.....	Wahpeton.....	June 16, 2 P.M.	Making improvements to water system at Indian Sch.	



## Water Supply—Continued.

Massachusetts..	Springfield.....	June 18, 2 P.M.....	Constructing covered masonry reservoir with gate houses, etc., cont. No. 3 L. R. W. S., in Agawan, 5 miles away, reservoir to cover 92,000 sq. ft., 26 ft. deep.....	C. H. Bennett, Chm. Bd. Wat. Com. J. F. Riddy, City Clerk.
North Carolina..	Shelby.....	June 22.....	Constructing water works and sewers.....	
New York.....	Schenectady.....	June 24, 2:30 P.M.....	Machinery and fittings of Ferry St. pumping station, inc. one low-duty Deane and 2 high-duty Gaskill pumps, etc.; also 4 return tubular boilers.....	
Michigan.....	Grand Rapids...	June 25, 8 P.M.....	Furn. 12,000,000-gal. pump; cost, \$80,000.....	H. F. Miller, Secy. Fd. C. & S. S. A. Freshney, Bd. Pub. Wks. Xavier A. Kramer, Magnolia, C. E. N. K. Thompson, Street Com'r. Harry J. McDargh, Dayton, C. E.
Mississippi.....	Columbia.....	June 30, 3 P.M.....	Constructing, complete water works system.....	
New Jersey.....	Elizabeth.....	July 1, 8 P.M.....	Constructing a pumping station.....	
Ohio.....	Lewisburg.....	July 1.....	Bldg. water and light system; operated by gasoline, \$25,000.....	
Ohio.....	Toledo.....	July 7, noon.....	Labor and mat. for concrete intake pier, pipe, gate house, etc., for Toledo filtration works.....	Reynold Voit, Secy Bd. Pub. Serv.
Georgia.....	Atlanta.....	July 8, 4 P.M.....	Three 300 h. p. horiz. water tube boilers, 200 lbs. pressure, erected, bricked in, on found. furn. by city.....	Park Woodward, Gen. Mgr. Water Bd. Fred. Gelinas, Sec'y Dept. Pub. W. & S.
Ontario.....	Ottawa.....	July 8, 4:30 P.M.....	Constructing a movable dam.....	
California.....	Los Angeles.....	July 27.....	Bldg. Jawbone div. Los Angeles aqueduct, cap. 400 second ft., inc. 43,000 lin. ft. lined tunnel; 60,000 ft. lined conduit; 340,000 cu. yds. excavation, etc.....	H. B. Ferris, Bd. Pub. Wks.

## Sewerage

Maryland.....	Baltimore.....	June 10, 11 A.M.....	Bldg. high-service reservoir and diversion sewer.....	J. B. Mahool, Pres. Bd. Awards. Bird St. Coler, Boro. President.
New York.....	Brooklyn.....	June 10, 11 A.M.....	Constructing sewer in E. 8th St.; cost, \$3,557.....	J. W. Hughes, Secy. Bd. Loc. Imp.
Illinois.....	Downers Grove..	June 11, 8 P.M.....	Constructing storm and sanitary sewers and culverts.....	John J. Hanberg, Com. Pub. Wks.
Illinois.....	Chicago.....	June 11.....	Erecting 3 water tube boilers, sewage pump station.....	Frank M. Randall, City Eng'r.
Indiana.....	Fort Wayne.....	June 11.....	Constructing sewer in Forest Park.....	John B. Calvi, City Clerk.
Michigan.....	Iron Mountain...	June 12, 1 P.M.....	Bldg. 2,896 ft. 48-in. rein. concrete sewer.....	A. Frederickson, Village Recdr.
Minnesota.....	Springfield.....	June 12, 8 P.M.....	Bldg. 4,000 ft., 15-in. outfall sewer, waterworks, etc.....	Capt. Arthur Cranston, U. S. Army Constructing Quartermaster.
Louisiana.....	Ft. St. Philip...	June 15, 10 A.M.....	Constructing sewer and water system.....	L. H. Deyo, Clerk, B. P. S.
New York.....	Fort Hamilton...	June 15, 11 A.M.....	Extension of sewer and water system.....	G. E. Rafferty, Village Clerk.
Ohio.....	Wauseon.....	June 15, noon.....	Constructing sewer in District No. 2.....	Jay J. Morrow, Engr. Com'r.
Ohio.....	Napoleon.....	June 15, noon.....	Constructing storm water and sanitary sewer.....	Guy W. Courter, City Engineer.
Dist. of Col'bia.	Washington.....	June 15, noon.....	Constructing sewers.....	E. D. Little, City Clerk.
Illinois.....	Mt. Carmel.....	June 15, 2 P.M.....	Building sewers; also 3,000 ft. brick paving.....	Robt. E. Wms., 84 La Salle St., Chic.
Indiana.....	Auburn.....	June 15, 7 P.M.....	Constructing vit. pipe sewer on E. 7th St.....	I. A. Miller, City Engineer.
Illinois.....	Melrose Park...	June 15, 8 P.M.....	Constructing main outlet sewer.....	
Texas.....	Houston.....	June 15.....	Construction of sewer lift.....	
New York.....	Lake Placid.....	June 16, 1 P.M.....	Laying, complete, 2 1/2 miles, 6 to 10-in. sewers in trench, 4 to 21 ft. deep; manholes, flush tanks, etc.....	C. E. Collins, Drexel Bldg., Phila. C. E.
Connecticut....	East Hartford...	June 16.....	Bldg. 800 ft. 8-in. pipe Belden St.; 1,600 in Larrabee St.; 800 ft. 10-in.; Burnside Av., manholes, etc.....	C. Henry Olmstead, C. E.
New Jersey....	Riverton.....	June 18, 8 P.M.....	Mat. and labor for single-ring 36-in. brick culvert, rein. with 1 1/2-in. cement coating, 1,740 ft. long, etc.....	H. S. Haines, Temple Bldg., Camden. C. E.
Massachusetts..	Boston.....	June 19, 2:30 P.M.....	Bldg. 42-in. concrete and 12-in. pipe sewers.....	Wm. M. Brown, Ch. Engr. Met. & S. Bd.
Wisconsin.....	Oshkosh.....	June 20, noon.....	Bldg. sewers, Mt. Vernon St., Harris and Central Aves.....	W. A. Marden, Bd. Pub. Wks.
Iowa.....	Davenport.....	June 22, 2 P.M.....	Constructing sewer in alley bet. 9th and 10 Sts.....	Thomas Murray, City Eng'r.
New Jersey....	East Rutherford.	June 22, 8 P.M.....	Bldg. 1 1/2 miles 8 to 24-in. pipe; also 6-in. pipe for house connections and two disposal plants.....	Chas. B. Johnson, Boro. Clerk.
Louisiana.....	New Orleans....	June 30, 3 P.M.....	Furn. and erecting two 100 k.w., 250 volt., dir. con. generators; two 75 h.p., 250 volt. motors; one 2,500,000-gal. turbine pump and 1,000,000-gal. triplex pump, to work against 125-ft. head, dir. con. to electric motor; 2,000,000 cen. pump; two 4,000,000 cen. pump units; two 5 h.p. 250 volt. motors; one surface condenser, 6,500 lbs. steam per hr.; air pump; piping, valves, wiring, switchboard, etc.....	George G. Earl, Gen. Supt. S. & W. Board. Bascom Sykes, City Engineer. Xavier A. Kramer, Magnolia, C. E.
Virginia.....	Portsmouth.....	June 30.....	Bldg. sewers, 5th Ward; add to pump, sta., cost, \$110,000.....	W. H. Luster, Jr., City Surv.
Mississippi.....	Columbia.....	June 30, 3 P.M.....	Constructing complete sewer system for city.....	R. L. Goff, Ocean City, Eng'r.
New Jersey....	Elizabeth.....	July 1, 8 P.M.....	Bldg. intercepting sewer, inc. 12,000 ft. 28 to 44-in. brick sewer, 8 to 25 ft. deep; 4,000 ft. 10- to 15-in. pipe, 11 to 25 ft. deep; 15,000 cu. yds. rock exc.; 70 manholes, pumping plant, cap. 5,000 gals. per minute.....	J. F. Riddy, City Clerk.
New Jersey....	Avalon.....	July 2.....	Constructing portion of sewer system; cost, \$3,000.....	
North Carolina..	Shelby.....	July 22.....	Constructing sewer and waterworks.....	

## Public Buildings

Texas.....	Ft. Sam Houston	June 11, 11 A.M.....	Bldg. 8 cavalry stables, 2 other stables, bakery.....	L. J. Fleming, Constr. O. M.
New York.....	Wampsville.....	June 11, 1 P.M.....	Bldg. County Court House and jail.....	J. A. Loyster, Chm. Bd. Co. Superv.
Iowa.....	Corning.....	June 11, 1 P.M.....	Bldg. school, Dist. No. 3, Douglas twp., Strand.....	L. O. Larson, Secy. School Bd.
New York.....	New York.....	June 11, 2:30 P.M.....	Bldg. new male dormitory, Farm Colony, Boro. Richmond.....	R. W. Hebbard, Com'r Charities.
Pennsylvania..	Easton.....	June 11, 5 P.M.....	Constructing 2 fire stations on South side.....	John Mutchler, City Clerk.
California.....	Los Angeles.....	June 12, 9 A.M.....	Erecting dormitory bldg., Cal. Polytechnic School.....	California Polytechnic School.
Colorado.....	Cheyenne Wells..	June 12, noon.....	Erecting Court House for Cheyenne County.....	John J. Huddart, Denver, Archt.
Ohio.....	Solon.....	June 12, noon.....	Erecting school, Dist. No. 2; F. H. Smith, Ashta., Archt.....	J. H. Brown, Clk. Bd. Educ'n.
Missouri.....	St. Charles.....	June 12, 3 P.M.....	Constructing, complete, U. S. Post Office.....	James Knox Taylor, Wash., D. C.
Michigan.....	Sturgis.....	June 12, 7:30 P.M.....	Erecting Carnegie library building; M. P. Carney, Archt.....	A. L. Hibbard, City Clerk.
Missouri.....	St. Louis.....	June 13, noon.....	Wrecking eng. house No. 11; bldg. new one, heating, etc.....	W. B. Dryden, Sec'y Bd. Pub. Imp.
Ohio.....	Radnor.....	June 13, noon.....	Erecting addition to school.....	R. W. Jones, Clk. Bd. Educ'n.
Alberta.....	Edmonton.....	June 13, noon.....	Erecting Court House.....	John Stocks, Dep. Min. Pub. Wks.
Ohio.....	Elmwood Place..	June 13, noon.....	Heat and ventilating system in public school.....	E. N. Hannaford, Cincin., Mech. Eng.
New York.....	New York.....	June 15, 11 A.M.....	Constructing, repairs, alterations, etc., 37 school bldgs.....	C. B. J. Snyder, Supt. Sch. Bldgs.
North Dakota..	Glen Villa.....	June 15, noon.....	Bldg. school and out bldgs., Saunders School Dist. No. 49.....	L. C. Lokhammer, Clk. Sch. Bd.
Ohio.....	Painesville.....	June 15, noon.....	Enlarging and repairing high school.....	Guy Wyman, Clk. Bd. Educ'n.
Ohio.....	Wyoming.....	June 15, noon.....	Erecting Fire Dept. building; bond \$1,000.....	W. A. Clark, Village Clerk.
Ohio.....	Kingscreek.....	June 15, noon.....	Heat & vent. old school; also new addition.....	C. R. Stonebraker, Clk. Bd. Educ'n.
Pennsylvania..	Albion.....	June 15, noon.....	Erecting high school building.....	Dr. J. M. Peters, Pres. Bd. Sch. Dirs.
Ohio.....	Logan.....	June 15, noon.....	Erecting school in Dist. No. 9, Marion township.....	Clerk Board of Education.
Ohio.....	Cleveland.....	June 15, noon.....	Installing sanitary apparatus in two schools.....	Charles Orr, Dir. of Schools.
Ohio.....	Mt. Blanchard...	June 15, noon.....	Erecting school house.....	C. B. Fahl, Clk. Bd. Educ'n.
New York.....	New York.....	June 15, 2:30 P.M.....	Exc. masonry, etc., 3 bldgs., Blackwells Island.....	R. W. Hebbard, Com'r Charities.
Iowa.....	Menlo.....	June 15.....	Installing hot water plant in school.....	R. B. Shaver, Secy. Sch. Bd.
South Carolina.	Fairfax.....	June 15.....	Bldg. 2-story school, 42 x 74 ft., brick, etc., \$7,000.....	G. L. Preacher, Box 603, Augusta, Ga.
Massachusetts..	Springfield.....	June 15.....	Bldg. 2-story and base, library; 220 x 86 ft.; \$300,000.....	Edw. L. Tilton, N. Y. City, Archt.
Virginia.....	Bristol.....	June 15.....	Erecting \$50,000 Court House.....	J. H. Gose, City Clerk.
California.....	Lemon Grove....	June 15.....	Building 2-story school; 48 x 72 ft., etc.....	Kennedy & Craine, San Diego, Archt.
Ohio.....	Fremont.....	June 16.....	Bldg. 2-room addition, 2nd Ward School, \$9,000.....	S. H. Shively, Architect.
Kansas.....	Newton.....	June 17, 3 P.M.....	Constructing, complete, U. S. Post Office.....	James Knox Taylor, Wash., D. C.
Iowa.....	Waterloo.....	June 17.....	Erecting new school, East Waterloo.....	H. B. White, 224 1/2 E. 4th St.
Ohio.....	Athens.....	June 18, noon.....	Bldg. south wing Normal College; also gym. bldg. and heating plant.....	I. M. Foster, Sec'y, Ohio Univ.
Texas.....	Houston.....	June 18, 3 P.M.....	Constructing Federal Building.....	James Knox Taylor, Wash., D. C.
Wisconsin.....	Milwaukee.....	June 18.....	Bldg. additions to No. 3 school.....	F. M. Harbach, Sec'y Sch. Dirs.
Ohio.....	Orrville.....	June 19, noon.....	Bldg. 4-room school; Harpster & Bliss, Akron, Archts.....	E. E. Clark, Clk. Bd. Educ'n.
Ohio.....	Butler.....	June 20, noon.....	Bldg. school house in Butler township.....	F. S. White, Clk. Bd. Educ'n.
Ohio.....	Canton.....	June 20, noon.....	Bldg. school in Sub-dist. No. 2, Tuscarawas twp.....	Clk. Bd. of Education.
Ohio.....	Findlay.....	June 22, noon.....	Bldg. 2 connected brick cottages on Infirm. Farm.....	John A. Sutton, Archt. Hancock Co.
Utah.....	Provo.....	June 22, 3 P.M.....	Constructing, complete, U. S. Post Office.....	James Knox Taylor, Wash., D. C.
Saskatchewan..	Regina.....	June 22, 4:30 P.M.....	Erecting Legis. & Executive bldgs. for Province.....	F. J. Robinson, Dept. Com'r Pub. W.
New York.....	Albany.....	June 22.....	Erecting State Education Bldg. on Washington St.....	Trus. of Pub. Bldg's, Capitol.
Arkansas.....	Fayetteville....	June 24, 3 P.M.....	Constructing, complete, U. S. Post Office.....	James Knox Taylor, Wash., D. C.
California.....	Riverside.....	June 24.....	Bldg. addition to Co. jail; cost, about \$6,000.....	County Supervisors.

## Public Buildings—Continued.

Massachusetts..	Great Barrington.	June 24.	Bldg. 12-room school at Housatonic.	Chas. Giddings, Sec'y Bldg. Com.
Texas.....	Greenville.	June 25, 3 P.M.	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Oregon.....	Portland.	June 25.	Plans for \$250,000 high school.	Board of Education.
New York.....	Canandaigua.	June 27, 10 A.M.	Alterations, additions, etc., Co. Court House; \$75,000.	Poster Warner, Granite bldg., Roch.
Ohio.....	Massillon.	June 29, noon.	Bldg. 3-story City Hall, 70 x 120 ft.	J. M. Bostick, Canton, Arch.
South Carolina.	Sumter.	June 29, 3 P.M.	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Pennsylvania..	Meadville.	June 30, 3 P.M.	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Wisconsin.....	Wautoma.	June 30, 6 P.M.	Erecting jail and sheriff's residence for Waushara Co.	W. B. Stilwell, County Clerk.
Oregon.....	Portland.	June 30.	Plans, \$250,000 high school; prices, \$1,000, \$500, \$300, \$200.	Board of Education
Ohio.....	Lancaster.	July 1, noon.	Erecting and equipping a municipal hospital.	Geo. Cunningham, Clk. Bd. Pub. Ser.
Maryland.....	Baltimore.	July 1, 3 P.M.	Bldg. and mech. equipment, extension to Federal Bldg.	James Knox Taylor, Wash., D. C.
Tennessee.....	Columbia.	July 2, 3 P.M.	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Georgia.....	Marietta.	July 6, 3 P.M.	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Kansas.....	Iola.	July 7, 3 P.M.	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Ohio.....	Springfield.	July 9, 3 P.M.	Constructing extension to U. S. Post Office.	James Knox Taylor, Wash., D. C.
Illinois.....	Chicago.	July 14, 11 A.M.	Wrecking, exc. and caissons for new City Hall.	Holabird & Roche, Monadn. Bldg., Architects.
Pennsylvania..	Sharon.	July 14, 3 P.M.	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Wisconsin.....	Rhineland.	July 20.	Constructing 3-story Court House; cost, \$100,000; stone, fire-proof construction, 120x95 ft. A. Taylor, Chm. Co. Com'rs.	C. H. Tegen, Manitowoc, Arch
Minnesota.....	St. Paul.	August 1.	Competitive plans for Mechanical Arts High School, 62 rooms; Architects all over country invited to submit plans.	Com. on Schools, School Bd.

## Bridges

Ohio.....	Hamilton.	June 11, 10 A.M.	Repairing west abutment bridge, Milford township.	J. E. Brate, County Auditor.
Indiana.....	Kentland.	June 11, 1 P.M.	Bldg. 11 bridges, concrete abutments, etc.	Alonso E. Furkey, Co. Aud.
New Jersey.....	Newark.	June 11, 1:30 P.M.	Additions and alterations bridge Baker St., S. Orange twp.	G. F. Drum, County Eng'r.
New York.....	New York.	June 11, 2 P.M.	Furn., etc., bronze grills, castings, tubing, etc., Wmsbg. bridge.	J. W. Stevenson, Com'r Bridges.
Iowa.....	Kilburn.	June 11.	Constructing highway bridge over Des Moines River.	E. H. Ruby, Co. Aud., Keosauqua.
Michigan.....	Ionia.	June 12, 10 A.M.	Removing wrecked steel span and old abutment; reldg. new concrete abutment and steel span, conc. floor.	C. I. Goodwin, Chm. Bridge Com.
California.....	Ukiah.	June 12, 7:30 P.M.	Bldg. bridge over Russian River at lower ford.	J. R. Adams, City Clerk.
Pennsylvania..	Pittsburg.	June 12.	Super. and masonry, 2 through-plate girder bridges.	F. P. Booth, County Controller.
Indiana.....	Terre Haute.	June 13.	Constructing 3 concrete and steel bridges.	Nathan G. Wallace, Co. Aud.
Pennsylvania..	Doylstown.	June 15, 11 A.M.	Bldg. rein. concrete bridge near Cross Keys.	W. Cadwallader, Clk., County Bd.
Nebraska.....	Omaha.	June 15, noon.	Constructing wooden pile bridges required for year.	D. M. Haverly, County Clerk.
Ohio.....	Jefferson.	June 15, 1 P.M.	Bldg. retaining wall, bridge over creek, Sheffield township.	J. S. Matson, County Sur.
Ohio.....	St. Clairsville.	June 15, 1 P.M.	Bldg. stone or concrete substructures, 7 bridges, superstructures 2 of them; concrete floors on all.	A. W. Beatty, County Auditor.
Kansas.....	Salina.	June 16.	Bldg. 2 bridges, 70 and 90 ft. long.	County Auditor.
Ohio.....	Jackson.	June 17, 1 P.M.	Bldg. 7 rein. concrete bridges, containing 370 cu. yds. and 72-ft. span steel bridge, containing 130 cu. yds.	Ed. Monahan, County Surveyor.
Ohio.....	Zanesville.	June 17.	Bldg. rein. concrete bridge over Crk. at Roseville.	Muskingum County Auditor.
Minnesota.....	Re. Wing.	June 17.	Bldg. bridge over Bullard Creek at Hay Creek; steel riveted span, 60 ft. long, c-c at ends, conc. and gravel floor.	Loweth & Welff, St. Paul, Engrs.
Indiana.....	Portland.	June 18.	Bldg. 6 steel bridges, 18 to 140 ft. long, using concrete abutments also 2 concrete arches.	W. H. Badders, County Surveyor.
Tennessee.....	Clinton.	June 20, noon.	Bldg. concrete arch culvert on Depot St.	J. K. P. Wallace, Chm. Co. Pike Com.
Ohio.....	Youngstown.	June 22, 11 A.M.	Sub. and superstructure, approaches, etc., at bridge.	Will B. Jones, County Auditor.
Minnesota.....	Crookston.	June 23, 10 A.M.	Bldg. 32 and 70-ft. span steel bridges with plans, etc.	N. S. Hoffard, County Auditor.
Ohio.....	Troy.	June 24, 10 A.M.	Bldg. concrete abutments, levee, new channel, etc.	H. J. Walker, County Engineer.
Indiana.....	Goshen.	June 24.	Constructing 24 bridges.	County Commissioners.
Ohio.....	Dayton.	June 25, 11 A.M.	Bldg. hand hoist bridge over canal at Miamisburg; 40-ft. waterway; 10-ft. rdwy.; two 6-ft. walks, etc.	H. R. Klepinger, County Eng'r.
Ohio.....	Cincinnati.	June 26, noon.	Steel superstructure, bridge Symes twp., Spec. 745.	Stanley Struble, County Com'r.
Ohio.....	Findlay.	June 27, noon.	Bldg. substructure of steel bridge over Blanchard River.	John A. Sutton, County Auditor.
California.....	Yreka.	July 7, noon.	Bldg. 220 ft. span steel bridge over Klamath River near Scott Bar; also 100 ft. steel span at Sawyers Bar.	W. J. Neilon, County Clerk.

## Lighting and Electricity

New Jersey.....	Jersey City.	June 10, 3 P.M.	Bldg. and equipping power house, etc., new Court House.	Hugh Roberts, 1 Exch. Pl., Arch.
New York.....	Fort Slocum.	June 10.	Electric wiring, etc., adm. bldg., drill hall and gym.	Constructing Quartermaster.
New York.....	New York.	June 11, 2 P.M.	Electrical equipment of University Heights bridge.	J. W. Stevenson, Com'r Bridges.
Pennsylvania..	Pittsburg.	June 11.	Constructing \$100,000 power house for Dept. Char. and Cor.	John P. Brennan, Bur. Bldg. Insp.
Missouri.....	Jeff. Barracks.	June 15, 11 A.M.	Bldg. complete, electric light system, inc. wiring all bldgs., pole lines, generating sta. bldg.; furn. fixtures, etc.; also boilers, engines, generators and pumps; also alt. bid to furn. current for lighting.	Capt. O. W. Bell, Q. M., U. S. Army.
Mississippi.....	Carrollton.	June 15.	Rebuilding electric light plant; Co. will dispose of all fire-damaged machinery and install new throughout.	B. F. Roach, Mgr. Electric Co.
Dist. of Col'bia.	Washington.	June 16, 10 A.M.	Furn. quantity electrical hoist equipments, motors, etc., at Newport News, Va., and Quincy, Mass.	E. B. Rogers, P. M. Gen., U. S. Navy.
Pennsylvania..	Wilkes-Barre.	June 16, noon.	Lighting sts., lanes and public places with incan. gas or naphtha lights, 3 or 5 years from July 15.	Fred. H. Gates, City Clerk.
Mississippi.....	Carrollton.	June 16.	Rebuilding municipal electric light plant.	The Mayor.
Mississippi.....	Natchez.	June 17, 4 P.M.	Contract for public lighting; 5 years from May 1, 1900.	O. W. Fowler, City Engineer.
Dist. of Col'bia.	Washington.	June 18, 2 P.M.	Furn. and install dynamos and engines, etc., Mus. Bldg.	Bernard R. Green, Supt. Constr.
Oregon.....	Chemawa.	June 19, 2 P.M.	Install boiler, extend power house; bldg. chimney.	E. L. Chalcraft, Supt. Ind. Sch.
Idaho.....	Minidoka.	June 19.	Furn. elec. apparatus for irrigation project; estimate, \$55,000 for immediate purchase, \$100,000 optional.	O. H. Ensign, Ch. Elec. Eng., 25 Carroll Bldg., Madison, Wis.
New York.....	Geneva.	June 20, 10 A.M.	Gas engine, dynamo and switchboard; electric wiring, pole line and con.; motors for State Agricultural Experiment Sta.	F. B. Ware, State Arch., Albany.
Washington.....	Spokane.	June 23, 3 P.M.	Install conduit and wiring system, Federal Bldg.	James Knox Taylor, Wash., D. C.
Louisiana.....	New Orleans.	June 30, 3 P.M.	Electrical and pumping machinery, Algiers station.	F. S. Shields, Sec'y S. & W. Bd.
Massachusetts..	Boston.	July 1, noon.	Lighting with gas and naphtha incandescent mantle burners on certain streets, parks and alleys, for 5 yrs., from Aug. 1.	Guy C. Emerson, Supt. Streets.
Ohio.....	Lewisburg.	July 1.	Bldg. electric light and water system; oper. by gasoline.	Harry J. McDargh, Dayton, C. E.
North Dakota..	Valley City.	July 6, 8 P.M.	Sale of city's electric light plant, \$40,000 or over; exclusive 20-year franchise to successful bidder.	H. F. Halverson, City Auditor.
Dist. of Col'bia.	Washington.	July 15.	Furn. 20 miles, type 44, interm. single-conductor cable, spec. 419; 30 miles, type 45, deep sea cable, sing.-cond., spec. 420; 5 miles, type 46, light double armor, single conductor cable, spec. 421.	Chief Signal Officer, U. S. Army.

## Miscellaneous

Maine.....	Bangor.	June 10, 8 P.M.	Furn. 1,000 ft. double jacket hose, Morse couplings.	W. S. Mason, Fire Chief.
North Carolina.	Wilmington.	June 12, noon.	Furn. fire engine, 700 to 900 gal. per min.; also reldg. engine.	W. A. French, Jr., Chm. Fire Com.
Manitoba.....	Harding.	June 12, noon.	Bldg. telephones as required in Woodworth mun.	W. V. Stevenson, Sec'y Treas.
Alabama.....	Fort Morgan.	June 15.	Bldg. wharf, Fort Gaines; also ext. one, etc., Fort Morgan.	Capt. L. F. Garrard, Jr., U. S. Army.
Dist. of Col'bia.	Washington.	June 23, noon.	Furn. 4th size, 2d size and chemical engine, 2 comb. chem. and hose wagons, 65 ft. aerial hook and ladder truck.	H. B. F. Macfarland, Com'r.
Ohio.....	Columbus.	June 23.	Rebldg. dam, St. Marv's works, etc.; total cost, \$261,000.	Chas. E. Perkins, Ch. Eng. Pub. Wks.
Ohio.....	Columbus.	June 24, noon.	Bldg. disposal plant for garbage and dead animals.	Henry Matzel, Ch. Eng'r B. P. S.
Alabama.....	Riverton.	June 27, 11 A.M.	Constructing concrete river wall, Colbert Shoals Canal.	Maj. Wm. W. Harts, Nash., Tenn.
Iowa.....	Sioux City.	June 29, 4 P.M.	Bldg. 19 new fire escapes to public school bldgs.	Reineck & Jenkinson, Archs.
Massachusetts..	Boston.	June 29, 3:30 P.M.	Furn. and install, piping at lock in Charles River dam.	Charles River Basin Com'n.
Manitoba.....	Winnipeg.	July 8.	Constructing movable dam, steel service and highway bridge, repair shop, etc., at St. Andrews Rapids, Red River.	Fred. Gelinas, Ottawa, Ont., D. P. W.



## STREET IMPROVEMENTS

**Ensley, Ala.**—A new boulevard, to be constructed from East Lake to this city, is to be started from Birmingham in the near future.

**Imperial, Cal.**—Plans for connecting this town and San Diego county roads are now being discussed.

**Ocean Park, Cal.**—The South Coast Civic League is advocating the widening of Speedway at a cost estimated at about \$250,000.

**Pasadena, Cal.**—Plans are being discussed for improving and extending the Altadena Boulevard.—Address Board of County Supervisors.

Proceedings have been started in Council for paving North Madison as far as Walnut street with bituminous macadam.

**Sacramento, Cal.**—Specifications have been adopted calling for the improvement of the alley Third and Fourth, I and J streets, with basalt blocks. The following resolutions ordering work were adopted: Twenty-second street from B to H, Twenty-second street from H to R, Twenty-first street from B to H.

The Clerk of the Board of Trustees was instructed to advertise for bids for excavating in McKinley Park in accordance with plans and specifications drawn up by Engineer Randle. A resolution of intention closing all the streets and alleys in South Side Park was adopted. The property owners on W street between Third and Fourth were granted permission to enter into a private contract for street work.

**San Bernardino, Cal.**—It has been decided to hold a special election some time in September for the purpose of voting on the issuance of \$625,000 bonds for improvements to roads throughout the county.

**Bridgeport, Conn.**—The Council Committee on Streets and Sidewalks will shortly purchase the materials to be used in the paving of Cannon street from Broad street to Courtland street, and Bank street from Broad to Water streets, and State street from Main to Water streets.

**Hartford, Conn.**—Plans are under way for paving of Asylum and Ford streets.—F. Ford, City Engineer.

**North Haven, Conn.**—At a special town meeting it was voted to expend \$9,000 on highways.

**Washington, D. C.**—The list of streets to be resurfaced with asphalt and asphalt block, appropriations for which are included in the District bill and which become available July 1 next, has been decided on by the Commissioners. According to officials of the Highway Department 50,000 square yards of sheet asphalt will be laid and 12,000 square yards of asphalt block. Bids will be opened by the Commissioners June 15 next and actual work will be commenced about July 6.

The list of streets upon which sheet asphalt is to be laid follows: Vermont avenue from T to U street northwest; 13½ street from D to Pennsylvania avenue northwest; D street from 13th to 14th street northwest; V street from 15th to New Hampshire avenue northwest; North Capitol street from T to V street northwest; 10th street, from D to G street southwest; K street from 4½ to 6th street southwest; Delaware avenue from B to C street northeast; C street from Delaware avenue to 1st street northeast; New Jersey avenue from B to C street southeast; 1st street from B to C street southeast; B street from New Jersey avenue to South Capitol street southeast; Florida avenue from 8th to 9th street northeast; 4th street from L street to Florida avenue northeast; Pennsylvania avenue from 13th to 15th street southeast; K street from 8th to 11th street southeast; New Jersey avenue from I to L street southeast; Canal street from D to South Capitol street southwest.

The list of streets upon which asphalted block is to be laid follows: S street from North Capitol to Lincoln road northwest; Randolph street from North Capitol to Lincoln road northwest; Girard street from 11th to 13th street northwest; Massachusetts avenue from S to T streets northwest; 34th street from R to T streets northwest; B street from 14th to 15th street northwest.

**Jacksonville, Fla.**—Upon resolution introduced by Street Commissioner Doran the Commission has ordered the preparation of plans for paving Jackson street from Santa Fe avenue to Harwood street. Estimates are to be based on the following specifications: (a) Bitulithic on concrete base, (b) bitulithic on bituminous base, (c) concrete curbing, (d) concrete gutters, (e) vitrified brick on concrete, (f) vitrified blocks on concrete, (g) combination concrete curb and gutter.

**Cedartown, Ga.**—The citizens have voted \$30,000 in bonds for sewerage extension and street improvements.

**Danville, Ill.**—A number of the streets are to be improved this year by paving; Grant, Wellington, and Washington streets are among those included.

**Elgin, Ill.**—The matter of paving Dundee avenue is being considered by Council.

**Joliet, Ill.**—An ordinance has been passed for paving Nicholson street with asphalt.

**Moline, Ill.**—Plans are being considered for paving Fifth avenue between First and Seventh street. The Board of Local Improvements has decided to pave certain portions of 18th, 19th and 20th streets.

**Springfield, Ill.**—The Board of Local Improvements is considering the paving of North Third street from Dodge street to Black avenue.

**Anderson, Ind.**—Council has decided to expend \$45,000 in paving streets with brick.

**Evansville, Ind.**—An ordinance is being considered for paving Louisiana street from Main street to the Springtown road with brick pavement.

**Goshen, Ind.**—Council has directed bids to be asked for paving Main street with asphalt and concrete curb and gutter.—Charles Kohler, Mayor.

**Hartford City, Ind.**—Council has voted to pave East Main street with brick.

**Irrington, Ind.**—Residents of Butler avenue are urging the paving of that thoroughfare.

**Muncie, Ind.**—The Board of Works has confirmed resolution for resurfacing Walnut street from the railroad south to Second street; the Board is also considering matter of resurfacing North Walnut street from Main to Wysor street.—J. O. Potter, City Engineer.

**Richmond, Ind.**—Plans are under way for issuing bonds for good roads in Wayne County.

**Wabash, Ind.**—Wabash street will be paved with brick this summer and it has also been decided to pave South Miami street from Canal street to the first alley south of Water street with brick.

**Cedar Rapids, Ia.**—Council is considering macadamizing E street.

**Independence, Kan.**—O. P. Smart presented a petition requesting Council to pave South Pennsylvania avenue from Poplar street to the Missouri Pacific railroad with macadam; the petition was referred to the City Attorney for a report as to whether it contained a majority of the signatures of property owners. Another petition presented was from the residents of Locust street asking that it be paved 30 feet wide with one course of brick and asphalt filler from the east side of Pennsylvania avenue to the west side of Poplar street; also a petition for the paving of North Second street from Main street to Locust street with one course of brick and asphalt filler, street to be 30 feet wide; also petition requesting that Magnolia street from Fourth street, west, to Pennsylvania avenue be paved with one course of brick and asphalt filler, the street to be 30 feet wide. A report was received from the City Attorney stating that the petition for paving South Pennsylvania avenue from Maple street to Poplar street with brick and asphalt filler, 40 feet wide, contained the legal requirements, and resolution was passed progressing that work on to the final step toward the passage of an ordinance and the letting of the contract; the paving of Fourth street from Main street to L. T. street was also progressed for one course of brick.

**Lawrence, Kan.**—Council is considering a resolution for paving Connecticut street from Warren to Adams; also for the paving of several streets with brick on concrete.—Frank D. Brooks, City Clerk.

**Wichita, Kan.**—Council has received petitions for paving Topeka avenue with bitulithic.

**Baton Rouge, La.**—Representative H. D. Wilson of Tangipahoa is interested in better roads for this State.

**Elkton, Md.**—The Good Roads Commission recently decided to build 46 miles of roads in Cecil County.

**Hagerstown, Md.**—Mayor Hammond favors the paving of all alleys in the central portion of the town from a fund now on hand.—Elmer E. Piper, Surveyor.

**Lowell, Mass.**—The Board of Aldermen has voted to set aside \$13,300 for macadamizing Westford street.

**Andover (North), Mass.**—A petition is being circulated asking for the macadamizing of Chestnut street from the junction of Andover street to residence of John Clark.

**Muskegon, Mich.**—The Street Committee of Council recently held a meeting for the purpose of considering the various bids for the pavement of different streets in the city.

**Mankato, Minn.**—Bids will be received June 20 for the purchase of \$4,000 6 per cent. Belgrade road bonds payable in the years 1909 to 1912, inclusive.—Wm. Peterson, Town Clerk, Box 454.

**St. Paul, Minn.**—The Board of Public Works is considering the matter of paving Summit avenue from Selby to Dale streets.

**Greenville, Miss.**—The citizens of Washington county will vote on the question of issuing \$60,000 county road bonds.—Address County Auditor.

**Kansas City, Mo.**—New boulevard, to be known as the South Benton Boulevard, is to be constructed between the city limits and the junction of Linwood and Benton boulevards along Kansas avenue.

**St. Louis, Mo.**—About seven miles of paving will be done in this city, ordinances having been introduced by the Board of Public Works, and include paving of Turner avenue, Blackstone street, Shawmut place, Warne street, Temple place and Granville place.

**Branchville, N. J.**—The Board of Freeholders has decided to macadamize the road leading from the Borough of Branchville through Culvers Gap to meet the road recently built in Sandstone Township.

**Elizabeth, N. J.**—Council has passed an ordinance for paving with trap rock Fulton street from Front street to Third street; also Broad street and Rahway avenue with asphalt on foundation made of depressed trap rock.

**Jersey City, N. J.**—Members of the various improvement associations are urging the repaving of Ocean avenue.

**Newark, N. J.**—Notices of intention were ordered published for a 10-inch sewer in Grant avenue, Lawton street and Sheridan avenue, between Peshine avenue and Hunterdon street; 8-inch sewer in Edmonds place, between Clinton place and Demarest street; for the grading, curbing and flagging of Peshine avenue, from Watson avenue to Renner avenue, and the paving of Ridge street, from Delavan avenue to Montclair avenue.—M. R. Sherrerd, City Engineer.

**Albany, N. Y.**—An ordinance has passed Council for paving Stanwix street from Delaware avenue to Second avenue, and Rensselaer street from Quay street to South Pearl street.

**Buffalo, N. Y.**—The Supervisors' Finance Committee recently decided to recommend bond issue of \$325,000 for good roads in this county.

**Brooklyn, N. Y.**—The Improvement Committee of the Ridgewood Democratic Club, Ridgewood Heights section, recently called upon Borough President Gresser and complained of the condition of Linden and Bleecker streets from St. Nicholas avenue to Woodward avenue, which are in need of new pavement.

**Fulton, N. Y.**—The Board of Public Works has taken steps for paving a number of streets, including Onelda street, North street, West street, and Hannibal street.

**Oneonta, N. Y.**—At a special election a proposition was passed appropriating \$2,600 for the village's share of laying a concrete pavement on Main street from the end of the present brick pavement to the corporation line.

**Ossining, N. Y.**—The Village Board has taken preliminary steps for paving Croton avenue from the end of the present pavement to Linden avenue; Engineer George R. Byrne may be addressed.

**Owego, N. Y.**—The town has voted in favor of issuing \$3,000 bonds for paving Court street.

**Palmyra, N. Y.**—The question of good roads is being discussed.

**Rochester, N. Y.**—Council has adopted the following final ordinances: Clifton street, extension; Joseph avenue, pavement, estimated cost, \$49,000; Merton street, extension; Plymouth avenue, pavement, estimated cost, \$23,000; Earl street, cement walks; Erith street, cement walks; St. Stanislaus street, cement walks; Sobieski street, walks; Kosciusko street, walks; Fairmount street, pavement; Exchange street, walks; Hawley street, walks; Carthage alley, sewer; Jefferson avenue, pavement resurfacing; Manhattan street, walks; Huntington street, pavement, estimated cost, \$6,800.

Council is considering an ordinance for paving North Water street between Main street and Central avenue.

A delegation of residents of St. Paul street have asked the Board of Public Works to look into the poor condition of the pavement on that thoroughfare.

**Saranac Lake, N. Y.**—The proposition to raise \$75,000 for paving Main street, Broadway, Bloomingdale avenue and Depot street, from Riverside Inn to the D. & H. Union station, with vitrified brick, and macadamizing side streets, has been carried.

**Troy, N. Y.**—Ordinances and resolutions as follows were introduced in Council and referred to committees: Alderman Freeman, grading of Jacob street, from Seventh avenue to Thirteenth street; grading of People's avenue, from Eighth street to Thirteenth street; grading of Federal street, from Eighth to Ninth street; placing grade on Jacob street, People's avenue and Federal street; repair of sidewalks on Fulton street; Alderman Himes, grading and paving of Collins avenue, from Pawling to Maple avenue; paving of Pawling avenue, from Ford avenue to the city line; Alderman Downs, construction of crosswalk on Sheridan avenue, between Sherman avenue and Thomas street; Alderman Watson, placing gravel on Twelfth street, between Jacob and Hutton

street; placing gravel on Thirteenth street, between Eagle and Hutton streets; construction of crosswalks on both sides of Thirteenth street, where the street intersects Eagle street; Alderman Owen, for crosswalks on Seventh avenue, on the south side of Second street, and across Second street, on the east side of Seventh avenue; Alderman Seibert, grading Sixteenth street and surfacing it with gravel.

**Akron, O.**—Council will probably authorize the paving of the slope of North Hill from Lodge street to the top of the hill.

**Conneaut, O.**—The plan to improve the main road east of here by paving has been approved by the State Highway Commissioners; the Commissioners of this county will make the improvement after the plans of County Engineer Maxon.

**Alliance, O.**—The Security Savings Bank of Toledo has purchased \$22,000 Alliance street improvement bonds at a premium of \$301.

At a recent meeting of the Business Men's Association a resolution introduced by B. F. Weybrecht was passed endorsing the new county line road, and that they urge the Commissioners of Mahoning County to authorize the extension of the said highway.

**Coshocton, O.**—A petition for paving North Third between Main and Chestnut streets is in course of preparation.—City Engineer Fisher.

**Dayton, O.**—City Engineer Cellarius has submitted his estimates to the Service Board for graveling Ziegler street, from Perry to Longworth, and also the paving of the same with cement walks; the former will cost \$1,060, and the sidewalks \$190. The engineer also submitted the plans and estimates for paving of Wayne avenue, from Burns avenue to Hickory street, the lowest being with plain macadam at \$859.80, and the highest with granite at \$1,588.50. Other estimates submitted were, Storm water sewer in Findlay street, from Springfield street to C. H. & D. switch, \$352; sidewalks and gutter in Winthrop street, 26 cents square yard; curb and gutter in Locust street, from Stillwater south, 50 cents lineal foot; sidewalks in north side of Herbert street, from Taylor to Webster, 72 cents square foot; and sidewalks, etc., on both sides Great Miami boulevard, at 50 cents lineal foot for curb and 11 cents per square foot for sidewalks.

**Follansbee, O.**—The Village Council has decided on the paving of Main street; plans will be immediately prepared.

**Hamilton, O.**—The City Engineer has been instructed to prepare plans for paving Millville avenue, from Main street to the C. H. & I. Railroad.

**Martins Ferry, O.**—Bids will be received June 25 for the purchase of \$25,000 4½ per cent. street improvement bonds.—Thomas L. Williams, City Auditor.

**Portsmouth, O.**—Robinson avenue is to be paved as soon as plans can be prepared and \$20,000 is to be expended for sewer purposes; a \$52,000 bond issue for necessary paving work will be authorized.

Bids will be received June 30 for the purchase of \$13,000 4 per cent. street improvement bonds, payable in the years 1911 to 1916 inclusive.—Filmore Musser, City Auditor.

**Sandusky, O.**—Bids will be received June 22 for the purchase of \$11,000 4 per cent. street improvement bonds.—Joseph Loth, Jr., City Auditor.

**Springfield, O.**—The Board of Public Works will expend \$10,000 for the improvement of the highways.

The matter of paving first alley west of Fisher, from Columbia to the first alley south and the paving of first alley east of Wittenberg avenue, from Main to Columbia streets, is being considered by Council.

**Toledo, O.**—Orange street, from Superior to Huron street, will be paved this summer. City Auditor McDonnell has borrowed \$30,000 for building new sidewalks about the city.

**Youngstown, O.**—Council has passed an ordinance providing for paving West avenue, from Marshall street to West Rayen avenue.—Address the Mayor.

**Allentown, Pa.**—The paving of Ridge avenue is under consideration.—Address Common Council.

**California, Pa.**—The borough proposes to increase the municipal indebtedness \$30,000, of which \$25,000 will be expended for paving and \$5,000 for sewers.

**Chester, Pa.**—The State Highway Commission is securing bids for improvements and extensions to road from East Coventry to a point near Kenilworth.

**Dawson, Va.**—Council has passed ordinance to pave Bridge, Railroad and Main streets; the work will be done this summer.

**Erie, Pa.**—New bids will probably be asked for by the Board of Park Commissioners for grading Cascade Park.

**Lebanon, Pa.**—Mayor Marquart has signed William H. Beard's Common Council bill, No. 1, appropriating \$40 for an asphalt cross-

ing over Forge street, west of the C. and L. Railway crossing and Dr. W. J. Klefer's Select Council bill, No. 2, appropriating \$1,000 for grading and macadamizing North Third street, between Lehman and Guilford.

**Leechburg, Pa.**—The County Commissioners have decided to let road contracts to the amount of about \$220,000 immediately. The contracts are advertised and the letting will take place about the middle of the month. The contracts advertised are four in number, as follows: Little Deer Creek Valley road, 8.6 miles; Perrysville Plank road, 2.5 miles; State road, 1.25 mile; Leechburg extension, 2 miles; total, 14.35 miles. The Little Deer Creek road is an entirely new improvement. The other contracts are extensions of road improvements already begun.

**Pittsburg, Pa.**—Cecil alley, which has been widened, will be paved. A company laying wooden paving blocks wishes to lay a sample pavement there.

**Spring City, Pa.**—The Borough Council has decided to pave Main street, from the canal bridge to Chestnut street; vitrified brick will be used.

**Pawtucket, R. I.**—A number of residents of Broadway have petitioned Council to have the present macadam taken up on that thoroughfare and replaced by bitulithic between Cottage street and Central avenue.

**Bristol, Tenn.**—A special election has been called by the Commissioners June 20 to vote \$100,000 bonds for new roads throughout Sullivan County.

**Chattanooga, Tenn.**—The Board of Public Works has decided to pave four miles of streets.—Address Clerk of the Board of Public Works.

**Knoxville, Tenn.**—The bids on paving five miles of streets were rejected, and Council changed the specifications to reduce the cost to the city; the Recorder will readvertise the work and new bids will be opened shortly.

**Memphis, Tenn.**—The city will offer for sale \$50,000 bonds, the proceeds to be used for paving.—Address City Engineer Ennis Douglass.

**Rogersville, Tenn.**—Bids will be received at once by the Pike Commissioners of Hawkins County for the macadamizing of about twenty miles of roads.—G. F. Phillips, Engineer.

**El Paso, Tex.**—The Chairman of the Streets and Grades Committee has been authorized to instruct the street car company to grade their tracks on Boulevard in connection with their work of double tracking; the city's share of the grading expense will probably not be more than \$800 or \$700, according to Colonel Brady's estimate, made up from figures by the City Engineer.

**Houston, Tex.**—The Houston Belt and Terminal Company will pave Preston avenue down to Crawford street with either asphalt or brick pavement.

**Lufkin, Tex.**—A special meeting is soon to be held for the purpose of voting on \$50,000 bond issue for good roads in this section.—Address City Clerk.

**McKinney, Tex.**—It has been decided to use vitrified brick for paving the public squares and for the business section.

**Tyler, Tex.**—Bids will be received June 25 for the purchase of \$10,000 5 per cent. 10-30-year paving bonds.

**Culpeper, Va.**—Bids will be received June 22 for the purchase of \$15,000 5 per cent. county road bonds.

The Stevensburg and Catalpa Districts of Culpeper County, contemplate asking bids for the construction each of about thirty miles of macadam roads.—G. B. Coons, County Clerk.

**Lebanon, Va.**—R. G. Fletcher, Russell County Clerk, will receive bids any time for the purchase of \$50,000 road improvement bonds.

**Olympia, Wash.**—J. C. Snow, State Highway Commissioner, is interested in three roads from the shores of Puget Sound across the entire State.

**Vancouver, Wash.**—The city has decided to extend the hard-surfaced district to the proposed Northern Pacific depot; ten blocks will be paved this summer.

**Milwaukee, Wis.**—An ordinance has been introduced in Council providing that the railway company pave Commerce street, abutting on its tracks.

**Montreal, Que., Can.**—City Surveyor Boulton submitted a revised list of streets to be paved, requiring an expenditure of about \$1,000,000, which, as accepted by the committee, follows: Common, from Custom House to McGill, \$42,000; Colborne, from Wellington to Notre Dame, \$22,400; Prince, from Common to William, \$19,300; Ottawa, from McCord to William, \$27,800; St. Patrick's, from Shearer to Atwater, \$57,200; Wellington, from Magdalen to tail race, \$56,700; Fullum, from Notre Dame to St. Catherine, \$12,000; St. Alexander, from Craig to St. Catherine, \$27,200; Harbor, from Notre Dame to St. Catherine, \$6,300; St. George, from Craig to

Dorchester, \$14,400; St. Catherine, from Fort to western city limits, \$31,300; St. Charles Borromeo, from Craig to St. Catherine, \$22,500; Inspector, from St. James to Lagache-tiere, \$13,900; Mansfield, from Lagache-tiere to Dorchester, \$8,500; Charlevoix, from Manufacturers to G. T. R. tracks, \$20,000; Centre, from Ropery to D'Argenson, \$30,000; Fortification, from St. Lawrence to St. Peter, \$12,000; St. George, from Fortification to Craig, \$1,100; Chenneville, from Craig to Vitre, \$5,200; Park avenue, from Sherbrooke to Pine avenue, \$37,000; St. Lawrence, from Sherbrooke to Pine avenue, \$33,000; Notre Dame, from C. P. R. bridge to Nicolet, \$125,000; Papineau, from St. Catherine to Ontario, \$47,700; Ontario, from Parthenais to Papineau, \$17,200; Lafontaine Park west, \$33,800; Lafontaine Park north, \$35,800; Champ de Mars street, \$4,650; Shearer, from G. T. R. tracks to St. Patrick's, \$25,000; Dominion, from St. James to St. Antoine, \$9,700; University, from St. Catherine to Sherbrooke, \$13,550; Notre Dame, from G. T. R. bridge to St. Margaret, \$29,000; Mackay, from Dorchester to Sherbrooke, \$23,500; Drummond, from Dorchester to Sherbrooke, \$25,700; Cathcart, from Mansfield to Union avenue, \$12,200. The report also recommended that the following streets be resurfaced: St. Catherine, from Peel west, in places, \$12,400; Notre Dame, from Atwater to bridge, \$27,500; Craig, from Bleury to St. Alexander, \$5,500.

## SEWERAGE

**Ensley, Ala.**—The city proposes to install sewer system for the former town of Wy-lam.

**Fresno, Cal.**—The County Surveyor's plans for connecting the county farm, hospital and orphanage with the city sewer have been accepted and the Clerk has been authorized to invite bids for the work.

**Livermore, Cal.**—Bids are being received for the construction of sewage system and sewage disposal plant; work is to be done under the direction of Engineer F. J. Boland of Handford.

**Ocean Park, Cal.**—The matter of extending the sewer system to the country lying back from the beach is now being considered.

**Sacramento, Cal.**—City Engineer Randle urges that the Board of Trustees compel the Southern Pacific Company to drain the Twelfth street subway; plans and specifications are being prepared for a sewer in the alley from Sixth to Eighth, R to S streets.—Clinton L. White, Mayor.

**San Diego, Cal.**—Emergency ordinance is before Council to permit it to at once expend \$34,000 for the La Jolla sewer system.

**San Francisco, Cal.**—The Board of Aldermen has received communications from the Board of Public Works recommending 15-inch ironstone pipe sewer in North Point street, 18-inch ironstone pipe sewer in Carolina street and a 12-inch ironstone pipe sewer to be constructed in crossing of Chattanooga and Jersey streets.

**Anacostia, D. C.**—The construction of a sewer along the westerly side of Nichols avenue between Howard and Sumner avenues, has been ordered by the District Commissioners.

**Washington, D. C.**—Sewer appropriations for the District of Columbia have been made as follows: \$50,000 for cleaning and repairing sewers and basins; \$80,000 for suburban sewers; \$15,000 for relief sewer from Pennsylvania avenue to Virginia avenue.

The Commissioners have ordered that the discharge channel at facade of boundary sewer at Twenty-first and A streets north-east be graded with rubble masonry and paved, at an estimated cost of \$1,500.

**Dover, Del.**—Estimates are being solicited for a new 28-inch sewer to extend from the Pennsylvania railroad tracks, at junction of Division street, to St. Jones River.

**Fairbury, Ill.**—Enlargement of city sewer system is proposed.

**Moline, Ill.**—H. G. Paddock, C. E., has completed surveys for a sewer system for Silvis, a suburb, to empty into Rock River.

**Coffeen, Ill.**—The installation of a sewer system is being advocated.

**Jacksonville, Ill.**—Council has appointed committee to consider building 36-inch sewers, one on each side of the brook sewer.

**Silvis, Ill.**—Engineer H. G. Paddock is preparing plans for sewer system.

**Sterling, Ill.**—The Board of Local Improvements is taking steps for building a sewer system in north end of the city.

**Boonville, Ind.**—Specifications for a \$60,000 sewer have been completed.

**Kendallville, Ind.**—The city is considering installing \$11,750 sewer system.

**Indianapolis, Ind.**—Plans have been completed for a 7.8 mile sewer for the North Side; it will cost about \$160,000 and will vary in size from a 12-inch pipe to an 8-foot circular brick or concrete tube.—Blaine H. Miller, City Engineer.

**Marion, Ind.**—The Board of Public Works has directed estimates to be secured for building sewers on Nebraska street.



**Princeton, Ind.**—Ordinance is to be brought before Council for construction of the south side storm sewer.

**Shelbyville, Ind.**—The town will advertise for bids soon for establishing a complete sewerage system.

**Terre Haute, Ind.**—Petitions are being circulated by property owners in North Sixth and One-half street, asking the city to order the construction of a sewer in the streets between Eighth and Third avenues.

**Muscatoine, Ia.**—The city is considering extending main trunk sewer from Eleventh street to Fullam avenue, at a cost of \$4,300.

**Oskaloosa, Ia.**—Council has ordered construction of South Spring sewer and laterals to cost \$2,300.—Earle Bridges, City Engineer.

**Coffeyville, Kan.**—The city will contract soon for constructing sewer in District No. 3.

**Louisville, Ky.**—The Board of Sewer Commissioners will open bids shortly for the construction of the sewer to be known as the Cave Hill cemetery sewer and drain.

**Fall River, Mass.**—Council has ordered construction of following sewers: In Buffinton street, \$2,100; in Jones street, \$3,500; in Plymouth avenue, \$3,000; in Irving, \$5,000; in Weetamoe, \$1,000; in Fenner, \$3,200; in Dwelly, \$2,200; in Kilburn, \$2,700.

**Laurina, Mass.**—In the Board of Aldermen an ordinance for the construction of the Fairmount sewer system, introduced by Alderman Dolan, was given its second reading under a suspension of the rules; the ordinance authorizes and directs a preparation of bonds amounting to \$20,000 for the construction of the Fairmount sewer.

**Springfield, Mass.**—It is probable the Board of Public Works will report in favor of the immediate construction of the Ferry street trunk sewer line.

**Flint, Mich.**—Council has directed Ray Middleton, City Engineer, to draw plans as a basis for the establishment of a general sewer system.

**Duluth, Minn.**—Council has passed a resolution authorizing the City Engineer to report on the estimates of cost of the construction of a storm sewer in Oxford street and intersecting streets, and has also passed a resolution for the construction of a sanitary sewer in West Fourth street, from Ninth avenue west to the outlet sewer in Eighth avenue west.

**Cameron, Mo.**—Mayor Munsell is advocating the construction of a sewer system.

**Marysville, Mo.**—The construction of a 10-inch sewer from West Third street, to cost \$1,500, is proposed by Mayor Robinson.

**St. Joseph, Mo.**—Ordinances for the following sewers have been introduced: Hammond street, Lake avenue, Cherokee street, and a new district known as 114.

**Laconia, N. H.**—Council has authorized the Mayor to appoint a committee of two to look into the matter of sewerage at The Weirs, including the expansion of such a system; also to estimate the cost of a pumping station with water mains extending to Lakeport.

**Cape May, N. J.**—Council has passed an ordinance providing for issue of \$150,000 bonds for the extension of the water and sewer system.

**Elizabeth, N. J.**—Council has passed an ordinance for construction of sewer on north side of Jersey avenue, from Bayway to a point near Grove street; also a sewer in Augusta street, and is considering the matter of constructing new sewers in a number of streets, including Williamson street, Julia street, Anna street, Pennington street, and New York avenue.

**Passaic, N. J.**—Council has passed an ordinance providing for the construction of a sanitary sewer in Eighth street, between South street and Lodi street, and to lay an outlet sewer in Lodi street.

**Rahway, N. J.**—The State Board of Health has decided to appoint an engineer to examine into the sanitary condition of the reformatory and to make plans for a sewer to better the conditions.

**Albuquerque, N. M.**—Samuel M. Gray, Providence, R. I., has been engaged as Consulting Engineer for the proposed \$175,000 sewer system.

**Albany, N. Y.**—Council has passed ordinance for laying vitrified pipe sewer on Livingston avenue west of Ontario street.

**Brooklyn, N. Y.**—A meeting of the East Venderver Park Taxpayers' Association was recently held, with President H. B. Robinson in the chair, to take the question up of asking the city authorities to look into the matter of placing sewers in that section of the city.

**Buffalo, N. Y.**—The town of Cheektowaga has applied for permission to make connections with the city's sewer in Genesee street.

**Pelham, N. Y.**—The Governor has signed a bill giving the Town Board power to build a disposal plant for the entire town.

**Potsdam, N. Y.**—At the special school meeting at Union Free School, No. 8, it was decided to appropriate \$900 to install a new and modern sewerage system in the school.

**Syracuse, N. Y.**—Chief Engineer Glen D.

Holmes is preparing plans for intercepting sewers; estimated cost, \$75,000.

**Waterloo, N. Y.**—The village has passed a vote for an appropriation of \$100,000 for the construction of a sewer system and disposal plant; bids will be called for at an early date.

—Morrison & Farrington, Inc., Syracuse, Engineers; Charles A. Bowman, Secretary and Treasurer.

**Akron, O.**—The estimated cost of the Brandywine ditch is about \$12,000; six miles are to be dredged; the work is to be done by the County Commissioners.

**Columbus, O.**—The City Clerk will immediately advertise for bids for the Sullivant avenue sewer, the cost of which will be approximately \$60,000.

**Hartwell, O.**—Plans have been completed by Riggs & Sherman Company, Toledo, for the proposed sewerage system.

**Magnolia, O.**—The village of Mineral City will sell \$2,000 worth of bonds for the construction of a sanitary sewer system.

**Marion, O.**—The question of a new garbage and sewage disposal plant is being discussed.

**Springfield, O.**—The Board of Public Service has decided to lay two new storm sewers, one in West Main street and the other in Southern avenue.

**Urbana, O.**—At a recent meeting of the business men of the city in Council chamber the matter of sewerage was discussed.

**Willoughby, O.**—Bids will be received June 29 for the purchase of \$7,238 4½ per cent. sewer bonds.—C. C. Jenkins, Clerk of the Board.

**Zanesville, O.**—The City Engineer will prepare plans for the construction of a sewer from Elmore street to the Muskingum River.

**Muskogee, Okla.**—Council has taken preliminary steps for the issue of bonds amounting to \$500,000. The money is to be used to establish a complete surface drainage system for the city and to build a new water main from the city to Grand River, a distance of six miles, to double the present water supply.

**Purcell, Okla.**—Council is to issue \$2,500 of bonds for sewerage work.

**Cambridge Springs, Pa.**—Council has approved plans for sewer extensions made by Engineer Doane of Meadville; bids will be called for soon.

**Canonsburg, Pa.**—Council will award a contract at once for the construction of a trunk line sewer which the borough will build this coming summer.

**Carlisle, Pa.**—An election will be held June 27 to vote on borrowing \$60,000 for installing sewer system.

**Lebanon, Pa.**—Mayor Marquart has signed William B. Eckenroth's Select Council bill, No. 3, authorizing special election in July on a proposition to issue \$240,000 bonds to pay for a new pipe line from the South Mountain dams to the city, a filter plant at South Mountain and a new distributing main system in the city.—Frank E. Krause, City Clerk.

**McKeesport, Pa.**—Common Council has concurred in the action of Select Council in passing a resolution instructing the proper officials to make application to the State Board of Health for permission to build the proposed two big sewers as storm drains, with small terra cotta sanitary sewers alongside.

**Natrona, Pa.**—The borough has been notified to submit plans and specifications for sewage disposal plant to the State Board of Health by August 3. It is suggested that Tarentum, Brackenridge and Harrison township join in building a plant.—Borough Secretary Gibson.

**Pittsburg, Pa.**—Plans are being discussed for large sewage disposal plant.—Address Health Commissioner Samuel A. Dixon, Harrisburg, for further information.

Council has adopted an ordinance for the construction of a sewer on Webster avenue, from point about 20 feet west of Tunnel street to point 45 feet east of Grant street.

**Providence, R. I.**—Board of Aldermen have adopted resolutions appropriating an additional \$100,000 for sewer construction.

**Westerly, R. I.**—Council has received a petition for the construction of a sanitary sewer in alley between West Eighth street and Hill street and Caledonia place.

**Fort Worth, Tex.**—The question of issuing \$75,000 bonds for construction of sewers in North Ft. Worth will be submitted to a vote of the people.

**Houston, Tex.**—City is advertising for bids for construction of the sewerage lift plant, which is to be put in soon as possible; the citizens of the South End have organized a drainage and improvement club.—Louis Phelps, 3805 Main street, may be addressed.

**Longview, Tex.**—Residents are organizing a company, to have capital of \$25,000 for installing sewer system.—G. A. Bodenhem, Mayor.

**Orange, Tex.**—H. W. Cardwell, Mena, Ark., has purchased from the recently organized Orange Sanitary Sewer Company the material that had been brought to Orange for

the purpose of installing a sewer system, and will install a much larger sewer system in the city than was originally planned by the above company.

**San Angelo, Tex.**—An election will be held July 15 to vote on the question of issuing \$45,000 sewer bonds.

**San Antonio, Tex.**—Taxpayers of newly organized District No. 7 will vote July 15 on issuing \$45,000 of bonds for constructing sewer system for that portion of the city.

**Alexandria, Va.**—Council has appropriated \$1,000 for the construction of a terra cotta sewer in Washington street, from Wilkes street to a point 50 feet south of Gibbon street.

**Montpelier, Vt.**—Council has voted to construct new sewers in Berlin and Barre streets.

**Burlington, Wis.**—Plans are under way for the construction of a sewerage system to be put in this year and next.

**Oconto, Wis.**—Estimates are being prepared for constructing sewers in District A, C and D.—D. J. Halloran, Clerk, Board of Public Works.

**Racine, Wis.**—Council has adopted plans for the lowering of the Tenth street sewer at a cost of \$4,010, and Grand avenue sewer at a cost of \$3,045.

**Toronto, Ont., Can.**—A by-law will be submitted to the ratepayers June 27 to raise \$2,400,000 for a trunk sewer and septic tanks; the chief items making up the amount for the trunk sewer are as follows: High-level sewers, \$753,500; low-level sewers, \$333,500; outlet to the lake, \$172,500; pumping station, \$172,500; septic tanks, \$402,500; land, \$550,000.

## WATER SUPPLY

**Benton, Ark.**—The St. Louis, Iron Mountain and Southern Railway Company will erect a 100,000-gallon water tank.—James W. Way, Consulting Engineer, St. Louis, Mo., may be addressed.

**Gridley, Cal.**—An election will be held to decide the question of issuing \$33,000 light and water bonds.

**Sacramento, Cal.**—The Pittsburg Manufacturing Company, which submitted plans and specifications in the filtration competition, has sent a letter to the Board of Trustees protesting because no award had been made; unless the city takes some action immediately, it stated, it would send a bill charging for the plans and specifications submitted; the matter was referred to the Water Committee.

**Hartford, Conn.**—The Board of Water Commissioners will strengthen the distributing system by laying a section of 16-inch pipe in State street to connect with the 24-inch main, which is to be laid in the River boulevard; a 12-inch main will also be laid in Walnut street, from Edwards to High streets, and 100 feet of 8-inch pipe in Kenyon street.

**South Manchester, Conn.**—The voters of the Eighth district will shortly vote on a proposition to install a water plant in that part of the city.

**Daytona, Fla.**—Adam Schantz has straightened out matters in connection with the Schantz estate since the destruction by fire of the electric light and Lily water plant, and Council of Daytona has granted the company a thirty-year franchise and it will be submitted to a vote of the people July 1; in addition to its own plant, the Schantz estate may install a water works plant and supply water to the city on a thirty-year franchise grant.

**Dublin, Ga.**—The city will install pumping machinery at the water plant.—E. D. White, Jr., Clerk.

**Lockport, Ill.**—An ordinance is before Council requiring all water consumers to install meters.—Address City Engineer Calkins.

**Rockford, Ill.**—The Water Works Committee is considering the matter of laying new water mains.

**Knox, Ind.**—Estimates are being prepared for system of water works.

**Terre Haute, Ind.**—Petitions are being circulated by property owners in North Sixth and One-half street, asking the city to lay water mains in the streets, between Eighth and Third avenues.

**Sioux City (Leeds), Ia.**—The citizens of Leeds are arranging to secure water system.—Address W. E. Lukins, President of the Leeds Improvement Association.

**Newport, Ky.**—Estimates are being prepared for improving pumping station and laying additional water mains.

**Pascagoula, La.**—Property owners have taken steps to establish a water system at West End Beach; it is planned to give the seashore a good water works system.

**Brunswick, Md.**—Bids will be received June 12 for the purchase of \$15,000 4½ per cent. municipal water works bonds, payable in thirty years, but optional after ten years.—A. B. Heabbes, Clerk.

**Takoma Park, Md.**—Mayor Wilmer G. Platt recommends that the Water Committee take up at once the matter of a new filtration plant.

**Huntington, Mass.**—The town will make a water loan of \$20,000 for the installation of a water works system.

**Grand Rapids, Mich.**—At the November election the question of issuing \$200,000 bonds for improving the water system will be submitted to a vote.

**Wyandotte, Mich.**—The Board of Public Works recommends that a filtration plant be built.

**Brainerd, Minn.**—Engineer George C. Morgan, Railway Exchange Building, Chicago, Ill., will prepare estimates for water system.

**Columbus, Mont.**—Council is arranging to establish water works.

**Hardin, Mont.**—The Hardin Water Company has incorporated with a capital of \$30,000 for the purpose of furnishing water to the town.—Carl Rankin, T. H. Carns and Robt. Anderson, Directors.

**Monroe, Neb.**—Estimates are being prepared for water system.

**Dover, N. H.**—Council authorized the construction of a filtration plant and other improvements to be made to the water works system.—E. F. Quimby, City Clerk.

**Branchville, N. J.**—An abundant supply of pure water has been discovered ten miles from the village, a site for a reservoir has been selected and contracts will probably be awarded soon.

**Cape May, N. J.**—An ordinance has been passed providing for an issue of \$150,000 bonds for extending water system.—Address City Clerk.

**Catskill, N. Y.**—The Town Trustees have appointed a committee to change the water system from a pumping to a gravity system.

**Lockport, N. Y.**—Council has adopted a resolution giving North Tonawanda permission to connect its water works system with the 30-inch force main of Lockport's water supply system.

**New York, N. Y.**—Mayor McClellan has sent a message to the Board of Aldermen urging immediate action on appropriations for the following improvements: \$170,000 for a delivery main in Trotting Course lane and Myrtle avenue, Brooklyn; \$10,000 for the extension of the water main system of Queens; \$2,500,000 for the improvement of the Brooklyn water supply, for the extension of mains and for the gridironing of the present system; \$65,000 to reinforce the foundations of the Ridgewood pumping station; \$46,500 for repairs to pumping station; \$80,000 for purchase of additional water for Queens and for hydrants for better fire protection in the newly built up sections of that borough.

**Yonkers, N. Y.**—The City Engineer has been authorized to prepare specifications, conforming to the plans, for a suction well at the tube wells in Yonkers; also plans and specifications for bunkers in Yonkers.—James D. McIntyre, Secretary, Board of Contract and Supply.

**Celina, O.**—Chas. E. Perkins, Chief Engineer State Board of Public Works, has advised City Engineer A. W. Fishball that he will visit this city in a few days preliminary to beginning the work of reservoir improvements; the cost of the improvement will be in the neighborhood of \$30,000.

**Dayton, O.**—The Service Board has decided to install an eight-inch water main in Edgar street to Lowell street, to give the Mercantile Corporation a water service so they can install a fire sprinkler system in their plant; the company has agreed to pay one-fourth of the cost of the construction. At the same time it was also decided to put in a sanitary sewer in the same street so the company could make connections; the concern will pay the entire cost.

**Elmore, O.**—The First National Bank of Columbus, O., has purchased \$15,000 5 per cent. Elmore water works bonds at 106.10.

**Lorain, O.**—A \$60,000 bond issue will probably be authorized extending the intake pipe beyond the breakwater.

**Urbana, O.**—An ordinance is before Council providing for the erection of a municipal water plant.—Address City Solicitor Seibert.

**Youngstown, O.**—Bonds will shortly be sold in the office of the City Auditor, the proceeds to be used for the construction of a water main in Wick avenue, from Commerce street to Madison avenue, and the extension of the West Federal street water main from Central square to Basin street.

**Avonmore, Pa.**—Plans and estimates are being prepared by Robert H. Wilson, C. E., of Saltsburg, for a municipal water plant for the borough; an election will shortly be held to vote bonds for the construction of same.

**Lebanon, Pa.**—An election will be held July 21 to vote on the question of issuing \$240,000 bonds for an increased water supply.—Address Mayor Marquart.

**Lock Haven, Pa.**—An ordinance has been passed to run an independent water line from Harmon street to the hill section of the city.

**Pawtucket, R. I.**—Council has passed an ordinance for the issuance of \$250,000 bonds for extension and improvement of the water system.

**Beaufort, S. C.**—Council will purchase the present water system or erect a new plant.—Address C. C. Townsend.

**Elizabethton, Tenn.**—A water works system will be established; surveys are now being made.

**Ennis, Tex.**—Council will secure estimates for water system.—T. H. Collier, Mayor.

**Greenville, Tex.**—The city will vote June 24 to issue bonds to purchase water works.—Address the Mayor.

**Rising Star, Tex.**—Council has directed estimates to be prepared for water system.

**Stratford, Tex.**—Estimates are being prepared for \$11,000 water system.

**Danville, Va.**—The City Water and Gas Department contemplates laying additional mains.

**Wenatchee, Wash.**—Council has directed estimates to be prepared for water system.

**Manitowoc, Wis.**—Estimates are being prepared for extending water system.

**Sheboygan, Wis.**—A demand has been made upon Council to compel the city water company to extend its intake pipe beyond the reach of sewage pollution.

**Thermopolis, Wyo.**—The Havemeyer Construction Company, Suite 613, No. 145 La Salle street, have the contract for the water works.

**Cienfuegos, Cuba.**—Secretary Taft, of the War Department, Washington, D. C., will draw up a proposal for submission to the proper Cuban authorities that the Cuban government shall construct the Cienfuegos water works. A contract for the construction of the water works was granted to the Reilly Contracting Company of New York, and it is with this contract that the difficulty has arisen, and which, it is now proposed, shall be taken over by the Cuban government.

**Aylmer, Ont., Can.**—The town corporation has been authorized to lay a water main under tracks of Canada South Railway within the town limits.

**Taber, Alta, Can.**—The Town Council has decided to install water system.—Address Clerk of the Council.

## LIGHTING AND ELECTRICITY

**Little Rock, Ark.**—Plans will be prepared by J. W. Bleidt, City Engineer, for a power plant capable of supplying 50 arc lamps; a 450-h.p. steam turbine will be installed; estimated cost, \$40,000.

**Gridley, Cal.**—Engineer Ralph Beebe has completed plans for combination light and water plant.

**Macon, Ga.**—Council has granted a franchise to the Citizens' Electric Company; capital, \$10,000.—Address Secretary.

**Centralia, Ill.**—The local plant of the Centralia Gas and Electric Company has been purchased by H. G. Higgins; improvements will be made.

**Joliet, Ill.**—The Western United Gas and Electric Company has purchased a site, and the company will proceed at once with the completion of plans for its new plant, which will be an enormous one and capable of doing a very large business.

**Manito, Ill.**—Council has rejected all bids for completion of electric light plant; new bids will be received.

**Evansville, Ind.**—Action toward installing electric lighting systems in both the white and colored orphan asylums will be taken at once by the Board of County Commissioners.—Address County Auditor.

**Garrett, Ind.**—The question of issuing \$15,000 bonds to establish an electric light plant will be submitted to a vote of the people.

**Hartford City, Ind.**—Owners of the local electric light plant contemplate putting in new and improved dynamos.

**Indianapolis, Ind.**—The People's Light and Heat Company has increased its capital stock to \$1,000,000; the company has purchased the mines of the Fauvre Coal Company, near Terre Haute, Ind., and proposes to locate a central power plant which will transmit electrical energy to Indianapolis and other Indiana cities and also to cities in Eastern Illinois; the company is headed by Indianapolis capitalists.

**Michigan City, Ind.**—The Chicago, Lake Shore and South Bend Railway Company will expend \$1,000,000 in power plant at Michigan City; the company has intentions of running lines to Niles along the route of the Michigan Central and eventually into Kalamazoo, Mich.—Office of Commissioner, National Bank Building, Chicago, Ill.

**Sheldonville, Ind.**—Council is considering substituting gas for electric light in the poorly lighted district.—Address K. M. Hord.

**Amite City, La.**—The city contemplates rebuilding electric light plant partially destroyed by fire.

**Frankinton, La.**—W. A. Erwin contemplates installation of electric light and ice plant.

**Jackson, Ky.**—The Jackson electric light plant has just been reorganized by Lexington promoters under the name of the Jackson Electric and Hydraulic Company; an ice plant is under consideration in connection with the light plant; additional machinery will be purchased.

**Laurel, Md.**—The citizens have voted \$10,-

000 in bonds for a municipal lighting plant.—Address Mayor.

**Marion, Mass.**—The Marion Gas Company has decided to install electric service in connection with its gas business; the capital stock of the company will be increased and further arrangements made later.

**Shelburne Falls, Mass.**—Wilcox & Halligan, proprietors of the local electric light plant, have applied for permission to incorporate; it is proposed to erect a larger plant and to supply electricity for motors as well as lamps.

**Springfield, Mass.**—Wilcox & Halligan, proprietors of the local electric light company, have petitioned for leave to incorporate; it is proposed to erect a plant of sufficient equipment to supply demands for power as well as light.

**Kalamazoo, Mich.**—The city lighting plant has been damaged by fire; two transformers in the plant, each valued at \$30,000, were badly damaged.—Address City Clerk.

**Morley, Mich.**—E. A. Bending, former principal of Muskegon High and Hackley Manual Training School, and Joseph Bicknell, master in charge of the mechanical department of the school, Muskegon, are promoting a big electrical power proposition in Morley; the power will be made by a series of dams on the little Muskegon River, near Morley, and at a point near Howard City.

**Brandon, Miss.**—The Planters' Gin-Compress Company will purchase equipment for lighting warehouse with electricity.—Wm. H. Turcott, Secretary.

**Miles City, Mont.**—Bids will be received June 23 for the purchase of \$10,000 6 per cent. 10-20-year electric improvement bonds.—J. E. Farnum, City Clerk.

**St. Louis, Mo.**—The Affiliated Business Men's Association plan to erect and maintain a municipal lighting plant; estimated cost of plant \$3,000,000.—Address Leo A. Landan, Chairman of the Legislature Committee.

**Fairfort, N. Y.**—The municipal lighting plant will be improved by the purchase of additional machinery.—Address Dr. W. F. Clapp.

**Merriton, N. Y.**—It has been finally decided to erect a new municipal electric light plant; three Commissioners are to be elected in charge.

**Oklahoma City, Okla.**—The Gas and Electric Company will expend \$200,000 in extending mains and other improvements.—A. S. Huey, President.

**Glen Rock, Pa.**—Glen Rock Electric Light and Power Company has been incorporated with \$20,000 capital.—C. B. Seitz, Treasurer.

**Abbeville, S. C.**—An election will be held June 3 to vote on the issue of \$25,000 electric light bonds.

**Pulaski, Tenn.**—The Pulaski Gas Light Company has increased its capital stock from \$300,000 to \$660,000; improvements will be made.—Address Secretary.

**Hillsboro, Tex.**—The city has granted a 20-year franchise to J. P. Tarr and Thomas Ivy to establish a plant to manufacture gas.

**Rising Star, Tex.**—The citizens have voted bonds for the construction of a light and water plant.

**Kewaunee, Wis.**—The village has voted \$20,000 bonds for municipal electric lighting plant.

**Madison, Wis.**—The Wisconsin Capitol Commission invites proposals for furnishing the pumping apparatus required at the heat, light and power plant now being erected for the service of the Capitol; the apparatus consists of, first, two horizontal duplex direct-acting steam pumps, each with a capacity of 400 gallons per minute; second, two horizontal motor-driven centrifugal fire pumps, each having a capacity of two million gallons per twenty-four hours.—Lew F. Porter, Secretary of Capitol Commission.

**Toronto, Ont., Can.**—The Toronto Electric Light Company will erect a sub-station at the corner of Tecumseh and Defoe streets.—J. J. Wright, Toronto, General Manager.

**Prince Albert, Sask., Can.**—The city will replace the present electric lights with arc lights; it is proposed to turn the old electric light plant into a power-house for a municipally owned electric street railway.—F. A. Creighton, City Engineer.

## FIRE EQUIPMENT

**Los Angeles, Cal.**—The Fire Commission will establish and equip a fire company at Fifty-fifth street and Western avenue.—Address Fire Chief Lips.

**Boulder, Col.**—Council has authorized an appropriation of \$15,000 for building two additional fire house and purchase equipment for the same.—Address City Clerk.

**Stratford, Conn.**—A petition is being circulated for calling a special town meeting to consider the purchase of more fire hose.—F. E. Conine is interested.

**Clear Water, Fla.**—Council will purchase Fire Department apparatus.—L. E. Roy Brandon, Mayor.

**La Grange, Ga.**—Council will let contracts for erecting fire engine house.—J. D. Edmundson, Mayor.



**Wardner, Ida.**—Council has decided to purchase additional hose.—Address City Clerk.

**Rushville, Ind.**—Council will advertise for bids for the purchase of hose carts.

**South Bend, Ind.**—Plans are out for new hose house to be erected for No. 9 Company; site has not as yet been decided on.

**Hagerstown, Md.**—Delegations from the Junior and Western Enterprise Fire Companies appeared before Council with Justice Charles D. Harth and Samuel D. Johnson as spokesmen and asked that new steamers be purchased; the matter will be considered and probably acted on favorably, as Mayor Hammond thinks at least one new engine should be secured.

**Asbury Park, N. J.**—Special election is soon to be held to vote on appropriation for new fire house to be erected on Corlies avenue, to cost between \$5,000 and \$7,000.

**Cranford, N. J.**—Plans have been completed for new engine house on site of present structure.

**Linden, N. J.**—A petition is being circulated for raising funds for the purchase of a new engine for Engine Company No. 5.

**Newark, N. J.**—The Fire Department will soon make an effort to secure a new fire house for Engine No. 9.

**Winston, N. C.**—Architect Zimmerman is now working on plans for a new fire house for Fire Company No. 1.

**Chardon, O.**—Plans are being prepared for a large new City Hall building and fire engine house, to be erected at a cost estimated at about \$80,000.

**Chester, O.**—At a recent meeting of Council the question of a new Fire Department building and necessary equipment were discussed.

**Dayton, O.**—The Board of Public Safety has strongly recommended the erection of a new fire house in the east end.—Address Chief Ramby.

**Toledo, O.**—Plans have been completed for building a \$30,000 fire house at Detroit avenue and Nessler street.—Address Fire Chief Mayo.

**Norristown, Pa.**—Plans are under way for supplanting the present apparatus of the Hancock Chemical Engine Company with up-to-date equipment.

**Pittsburg, Pa.**—Plans are under way for a new patrol station in the Fifth Ward, North Side, to cost not more than \$10,000.—E. R. Walters, President of the Select Council.

**Plymouth, Pa.**—Henry Samis, Chief of the Fire Department, requests the purchase of new hose for the Fire Department.

**Reading, Pa.**—The Council Committee on Fire recommends the purchase of a combination chemical engine and hose wagon.

**Scranton, Pa.**—Eight new fire houses are to be erected this year, if present plans go through; a special bond issue for this purpose is proposed.

**South Bethlehem, Pa.**—The Fire Committee has been instructed by the Borough Council to purchase 500 feet of fire hose for new hose carriage, which will also be purchased.

**Wilkinsburg, Pa.**—Plans are now being prepared by A. Dudgeon & Sons, Wood and Ross avenue, for new engine house and stable on Swissvale avenue; cost about \$15,000.

**Central Falls, R. I.**—It has been proposed to purchase new chemical and hose wagon for the Kendall street fire station.—Address City Council.

**Seguin, Tex.**—Bids are soon to be received for new fire station to cost about \$6,000.

**Bellingham, Wash.**—Architect William Cox has prepared plans for new fire hall; a new fire wagon is to be purchased.

## PUBLIC BUILDINGS

**Tusculum, Ala.**—Plans are being discussed for a new and handsome Court House, to cost about \$100,000, to replace Colbert County Court House, destroyed by fire.

**Berkley, Cal.**—The electors have voted \$250,000 school bonds.—Address Clerk of the School Board.

**Sacramento, Cal.**—At a recent meeting of the Board of Trustees, Mr. Carragher introduced an ordinance selecting site at H and I and Ninth and Tenth streets for new City Hall.

**San Diego, Cal.**—The City Board of Education has authorized W. S. Hubbard, Grant Building, to prepare plans for new Brooklyn Heights school, to cost about \$25,000, and John C. Austin, Los Angeles, to prepare plans for the Logan Heights school, to cost about \$45,000.

**San Francisco, Cal.**—An appropriation of \$18,830,000 has been made for the erection of several new schools.—Address Board of Education.

**Chicago, Ill.**—Architect Fischer of 9154 Commercial avenue is preparing plans for a new hospital to be erected on site of present building, at Ninety-third street and Oglesby avenue, for the South Chicago Hospital Association, to cost about \$60,000.

**Greenfield, Ill.**—Citizens have voted a new school for High School purposes, to be modern construction and cost about \$30,000.—Address the School Board.

**Joliet, Ill.**—About \$25,000 has been secured for the erection of a new City Hall building.—John R. Cronin, Mayor.

**Morocco, Ind.**—New plans are being prepared for school at Goodland, for which appropriation has been made.—Address School Board.

**Burlington, Ia.**—Work has been commenced on a modern new sanitary jail, to be erected at Popejay.

**Jennings, La.**—A new school to cost about \$30,000 is soon to be erected.—Address Secretary, School Board.

**Waterville, Me.**—Freeman, Funk & Wilcox, Boston, Mass., were authorized to prepare plans for new high school, to be large and modern, and work to be commenced as soon as possible.

**Prince Frederick, Md.**—George W. Dowell, Chairman of the Committee appointed to build a new jail, can be addressed for further information.

**Plymouth, Mass.**—It has been proposed to erect a large and modern new Town Hall and building for use for large meetings, entertainments, etc.—Address Wm. S. Brewster, Commercial Club.

**Revere, Mass.**—A School Committee has been appointed in charge of enlarging Revere street school and \$20,000 was appropriated.

**Hopkins, Minn.**—Architect F. D. Orff of Lumber Exchange Building, Minneapolis, has plans for modern new school house, to be brick and stone, contain eight rooms, and cost about \$35,000.

**Lancaster, Mo.**—It has been voted to erect a modern new school, and bonds to the amount of \$15,000 are to be issued for this purpose.—Address the School Board.

**St. Joseph, Mo.**—Citizens have voted \$500,000 bonds for new schools.—Address City Clerk.

**North Platte, Neb.**—The question of a new Court House is being discussed; it is proposed to secure funds by bond issue for modern new building.

**Omaha, Neb.**—Bonds, \$3,000,000, have been voted for new jail and Court House.—D. Haverly, County Clerk.

**Secaucus, N. J.**—At a special election the people voted an additional \$8,000 to be added to the original appropriation of \$22,000 for new Borough Hall.

**Woodbridge, N. J.**—Citizens recently voted to expend \$12,000 for new addition to present school.

**Geneva, N. Y.**—Council has decided to raise funds as soon as possible to the amount of \$100,000 for new City Hall.

**Newburgh, N. Y.**—A meeting of the City Councilmen and Board of Education was held at the City Hall recently to discuss an appropriation of \$115,000 for new school and purchase of suitable site.—Mr. Shipp, President of School Board.

**New Rochelle, N. Y.**—The Board of Education has been authorized to issue \$100,000 bonds for a new grammar school in St. John's place, known as the Italian Quarter.

**New York, N. Y.**—The Board of Estimate has authorized an appropriation of \$2,700,000 to begin the construction of the new municipal building on Park Row. This amount will merely pay for the subsurface portion of the structure.

**Schenectady, N. Y.**—The Board of Contract and Supply has plans for a new 16-room school, and contracts will soon be awarded.

**Biltmore, N. C.**—A new school is soon to be erected near the Henderson road and property purchased.

**Bellevue, O.**—Plans have been completed and contracts are being awarded for new Logan County Children's Home; estimated cost, \$22,000.

**Cincinnati, O.**—It is probable a special election will be held regarding the proposed new jail for the county; it has been proposed to locate it outside of the city limits.—Address Judge John A. Caldwell.

**Dayton, O.**—Bonds for the new County Infirmary building, aggregating \$90,000, were sold by County Auditor Kauffman; the successful bid was a joint proposal submitted by the Dayton Savings and Trust Company and the Central Trust and Safety Deposit Company, and the Western German Bank, both of Cincinnati. The premium paid by the joint bidders is \$3,335; the bonds bear interest at 4 1/2 per cent. and mature in twenty years. The premiums offered by the various bidders were the following: E. H. Rollins & Sons, Chicago, \$2,781; Otis & Hough, Cleveland, \$3,753; Hayden-Miller & Company, Cleveland, \$2,375; First National Bank, Columbus, \$1,889; Dayton Savings and Trust Company, joint bid with the Central Trust and Safety Deposit Company and the Western German Bank, the former of Dayton, and the two latter of Cincinnati, \$3,835; Seasongood & Mayer & Company, Cincinnati, \$3,400; W. R. Todd & Co., Cincinnati, \$2,700; First National Bank, Cleveland, \$3,175; Weil-Roth & Co., Cincinnati, \$3,434.50.

**Massillon, O.**—A special meeting was held recently to discuss plans for early completion of the City Hall; Architect J. M. Bostick prepared plans.—Address Dr. Hattery or Clerk Shultz.

**New Lexington, O.**—Showers & May of Crooksville, have been awarded contract for new school, to be brick and modern construction and cost \$30,000.

**Youngstown, O.**—Kling & Zenk, Davis Building, have prepared plans for new school to be known as the McKinley school, to be located at Kensington and Bissell avenues, to be 78x128 feet and brick and modern, to cost \$30,000.

**Shattuck, Okla.**—At a special election recently it was voted to issue \$16,500 bonds for new school.—Address Town Clerk.

**Cornelius, Ore.**—Ernest Kroner, of 165 1/2 Third street, Portland, has prepared plans for a new school, to be brick and stone and cost \$12,000.

**Altoona, Pa.**—A \$30,000 armory erected by the State for the use of Company E, city, and Company C, of Holidaysburg, Fifth Regiment, N. G. P., is at last to be built in this city; the project only awaits the action of the city authorities, the State Armory Board having already given its consent.

**Mifflin Township, Pa.**—The School Board has selected plans for new building at Homestead, Park, to cost between \$8,000 and \$12,000.

**Pittsburg, Pa.**—Plans and specifications are prepared for a three-story six-room addition of brick to the public school in Maple avenue, Edgewood, which will have a seating capacity of 240 pupils.

**Tulia, Tex.**—The citizens of Swisher County will vote, August 8, on issue of \$60,000 Court House bonds.—Address County Auditor.

**Tyler, Tex.**—An election will be held June 27 to vote on issue of \$160,000 Smith County Court House bonds.—Address County Auditor.

**Ogden, Utah.**—The School Board recommends an issue of bonds for erecting high school building.—Address Clerk of the Board.

**Petersburg, Pa.**—Plans have been completed and contracts are to be awarded for remodeling and improving City Jail.

## ELECTRIC RAILWAYS

**Redlands, Cal.**—The Redlands & Yucaipa Electric Railway Company, which was organized here, will begin work on its line immediately; the railway system will connect Redlands, Yucaipa and Oak Glen and will be about twenty-two miles in length; the company proposes to erect a power station and repair shop at Redlands; amusement parks will be operated at Cherry Croft and Oak Glen; the company will also furnish power for lighting; the authorized capital is \$1,000,000.—J. M. Neeland, Grosse Building, Los Angeles, President.

**Colorado Springs, Col.**—The Kansas-Colo-rado Railway Company, capitalization \$5,000,000, and the Colorado Transportation Company, capitalization \$5,000,000, have been organized to build an electric line from Garden City, Kan., up the Arkansas Valley to Canon City, Co.; J. A. Lockhart, Rocky Ford; A. H. Atwater, Canon City, and others are incorporators.

**Grand Junction, Col.**—Morris K. Devereaux has petitioned Council for a franchise to construct a street railway in Grand Junction.

**Murphysboro, Ill.**—The Murphysboro Electric Railway, Light, Heat and Power Company will build a three-mile extension to its present two-mile line.—W. C. Alexander, General Manager.

**Council Bluffs, Ia.**—R. W. Bisbee is promoting an electric company for building an electric road from Sioux City to Council Bluffs.

**Paducah, Ky.**—The Paducah & Cairo Inter-urban Railway Company has been granted a franchise to build its line in Paducah; the line will extend from Paducah to East Cairo, Ky., where it will connect with ferry boats operating between East Cairo and Cairo, Ill.

**Adrian, Mich.**—P. P. Duket, of Adrian, is promoting an electric railway to connect Adrian and Coldwater.

**Clayton, Mo.**—Robert McCulloch, acting for the United States Railways Company, has applied to the County Court at Clayton for a franchise to double-track the line to St. Charles from the city limits to the German Orphans' Home.

**Washington, O.**—The Springfield and Washington Railway Company has been incorporated with \$1,000,000 capital by Hiram C. Baker, Charles Baughton and others; the line will pass through the counties of Clark, Madison, Greene, Bayette and Ross, with headquarters in Washington Court House.

**Oklahoma City, Okla.**—Oklahoma City, El Reno & Shawnee Rapid Transit Railway Company, Charles A. Huber, Oklahoma City, President, proposes to build five power plants; one or two power plants and car barn at Oklahoma City.

**Shawnee, Okla.**—The Shawnee Chamber of Commerce has pledged a bonus of \$75,000 to any company that will build an electric railway from Shawnee to Muskogee. Okmulgee and Okemah have also pledged \$25,000 each.

**Astoria, Ore.**—F. L. Evans is organizing

the Astoria Seaside and Tallamook Railway, with a capital of \$2,000,000.

**Newcomb, Tenn.**—Peter Zechini, of Newcomb, is interested in plan to build an electric railroad from Newcomb to Jellico, Tenn.

**Wheeling, W. Va.**—The Wheeling Traction Company contemplates extending its line to Moundsville this summer.—H. O. Nagle, Superintendent.

## BRIDGES

**San Francisco, Cal.**—The Excelsior Homestead Progressive Association is to ask the Board of Supervisors to provide in the budget for the construction of a permanent stone and steel viaduct over Islais Creek at Mission and Trumbull streets, to replace the temporary wooden viaduct erected by the Ocean Shore and United Railroads Companies. These corporations have agreed to contribute \$50,000 each toward the improvement, and the city is asked to appropriate \$150,000.

**Santa Cruz, Cal.**—Council has taken preliminary steps for bonding the city for \$100,000 for a new bridge and expansion of the electric light system and water supply.

**Vallejo, Cal.**—The Southern Pacific Company has agreed to construct concrete bridge over its tracks at Georgia street, the city to pay \$2,500 toward the cost.

**Pueblo, Col.**—Denver & Rio Grande Railroad and city have reached an agreement whereby the former will do the work of rebuilding the C street viaduct, recently damaged by fire, at a cost of \$10,800.—W. A. Balcom, Pueblo, Division Engineer, D. & R. G. R. R.

**Aurora, Ill.**—Council has adopted plans prepared by Engineers Tibbets & O'Hagen for \$60,000 bridge, to be constructed across the Fox River.—Address Mayor Finch.

**Chicago, Ill.**—The Superintendent of City Bridges, Philfeldt, has decided the State street bridge is dangerous; the city has requested the Northwestern Railway to rebuild bridge at a cost of \$50,000.—Address City Engineer.

**Maywood, Ill.**—The Village Board has decided to build a bridge across the Des Plaines River at Lake street.—Address Clerk of the Village Board.

**Evansville, Ind.**—Bids for the construction of the bridges for which appropriations were made by the County Council will be advertised for at once.—Address County Auditor.

**Indianapolis, Ind.**—The Board of Public Works has been petitioned to construct a bridge over Pogues run in Le Grande avenue.

**Topeka, Kan.**—The City Clerk has been directed to invite bridge companies to submit plans and estimates for new bridges across the Shunganunga, on Lincoln street and Soldier Creek on Central avenue, the old bridges at these points being in bad condition.—John Rogers, City Engineer.

**Wichita, Kan.**—City Engineer has been directed to prepare plans for an 80-foot wide bridge over the drainage canal on East Douglas street.

**Takoma Park, Md.**—A new bridge is to be built across Sligo stream, the Legislature having appropriated \$2,500, which sum will be added to by the town and by donations.—Wilmer G. Platt, Mayor.

**Manistique, Mich.**—The School Board proposes to build a steel bridge over the Indian River near Manistique.—Address County Auditor.

**Duluth, Minn.**—City Engineer McGilvray is drawing plans for a new concrete bridge to replace the one condemned at Thirty-seventh avenue and West Third street; the bridge will cost about \$15,000.

**Rolla, Mo.**—An election will be held August 4 to vote on bonding the county to build four steel bridges, two across Big Dry Fork and two across Big Piney.—Address Phelps County Auditor.

**Springfield, Mo.**—The City Engineer is preparing plans for the bridge to be constructed across the Jordan at Boonville and Main streets; the bridge as proposed for Main street will be of concrete floor, with eighteen-inch I-beams and the bridge at Boonville street will be a reinforced concrete arch spanning the creek.—Address City Engineer.

**Newark, N. J.**—The Board of County Freeholders rejected all bids received May 11 for constructing a bridge on Glenn avenue, Milburn, and have ordered the County Engineer to prepare new plans for a steel structure.

**Albuquerque, N. M.**—The bond issue of \$100,000 for bridge and road improvements authorized by Bernalillo County has been authorized by the U. S. House of Representatives; the construction of two bridges, to cost about \$80,000 is contemplated.—Alfred Grunsfeld, Chairman County Commissioners.

**Cazenovia, N. Y.**—The State Legislature has passed bill appropriating \$6,000 for construction of a bridge over outlet of Cazenovia Lake in this village.

**Rochester, N. Y.**—Governor Hughes has signed the two bills providing for new bridges over the Erie canal at Allen street and Lyell avenue; the appropriation for Allen street lift bridge is \$50,000 and for Lyell avenue \$55,000.—Address City Clerk.

**Seneca Falls, N. Y.**—The State Legislature has appropriated \$12,000 for construction of new bridge over the Cayuga and Seneca Canal at Ovid street.

**Cleveland, O.**—The Erie railroad representatives have notified the city of the company's intention to replace the old swinging bridge near the Central blast furnace with a modern structure of the rolling lift type; City Engineer Hoffman's estimate of the cost of the bridge is \$100,000; it will be of steel construction and it will be made to span a 120-foot channel; at the present time the channel is fifty-three feet wide, but the city has planned to widen the river at this point.

**Defiance, O.**—Bids will be received June 12 for the purchase of \$25,000 4½ per cent. county bridge bonds.—Edwin E. Hall, County Auditor.

**Springfield, O.**—Bids will be received June 23 for the purchase of \$40,000 4 per cent. bridge bonds.—L. M. Harris, City Auditor.

**Guthrie, Okla.**—The city is to call for bids for erecting steel bridge with concrete roadway over the Cottonwood on Fifth St.

**Monongahela, Pa.**—Allegheny and Washington County's Commissioners have received word that the War Department has approved plans for a bridge over the Monongahela River at Monongahela City, the expense to be borne jointly by Allegheny and Washington counties; the structure will be built in three spans and will give the required clearance for navigation.—Address Washington County Auditor, Washington, Pa.

**Austin, Tex.**—An election is to be held in this county June 29 to vote on a \$500,000 bond issue. A portion of the issue will be used for refunding purposes, and the larger part for a new bridge across the Colorado River.

**Cranbury, Tex.**—The new wagon bridge three miles north of town, known as the Fairview bridge, which was built two years ago at an expense of about \$15,000, has been washed away.—Address Hood County Auditor, Granbury.

**San Angelo, Tex.**—Council is to build a \$1,150 foot bridge.

**Montgomery, W. Va.**—The Montgomery Bridge Company will soon let contracts for \$70,000 iron bridge to be erected across the Kanawha River; W. Montgomery, J. M. Montgomery and others are interested.

**Wenatchee, Wash.**—The County Commissioners have advertised for bids on the bridge lately ordered near Peshastin; the bridge is to cost \$12,000 and will be on the route of the new proposed highway from Seattle across the mountains and will also open up valuable timber and agricultural land.—Address Chelan County Auditor.

## MISCELLANEOUS

**Alameda, Cal.**—At a recent election \$125,000 was voted for three municipal playgrounds; Mayor E. K. Taylor is to select sites.

**Oakland, Cal.**—Arrangements are now being made for a new playground and park at East Oakland.

**Sacramento, Cal.**—Bids will be received June 22 for the purchase of the following 4½ per cent. bonds: \$660,000 Court House and jail bonds, \$600,000 road and highway bonds, \$225,000 bridge bonds.—Wm. B. Hamilton, County Clerk.

**Atlanta, Ga.**—The Finance Committee recommends that Council issue \$500,000 bonds.—Address Clerk of the Finance Committee.

**Dublin, Ga.**—Council proposes to expend \$55,000 extending water mains, constructing sewers and establishing fire alarm system.—E. D. White, Jr., Clerk.

**Boise, Ida.**—The question of issuing \$100,000 in bonds for establishing a public park will be submitted to the voters at once.

**Haddon Field, N. J.**—A representative of an establishment making sprinkling wagons was present at a recent Council meeting and showed pictures of their apparatus; this was a result of the resolution offered at a previous meeting by Mr. Glover, that the borough purchase a vehicle for watering the streets, a proposition that has been received by the people with enthusiasm.

**Glens Falls, N. Y.**—The question of a new crematory is now being discussed.

**Rochester, N. Y.**—The Board of Estimate and apportionment has authorized the purchase of land for new park and playground at Pike's Quarry.

**Cleveland, O.**—Acting under instructions from Mayor Johnson, Park Engineer Stinchcomb has begun to prepare plans for a waiting room and public comfort station to be erected at the east end of the Superior avenue viaduct. The station will be put at the junction of Superior hill and West Ninth street; a portion of the station will be underground if present plans are carried out.

**Conneaut, O.**—Council has decided in its negotiations with E. M. Comstock for the 36 acres of the "Allyn Flats," which it is proposed to purchase for a "Riverside" Park, to take a 30-day option for the purchase of the property at Mr. Comstock's price of \$4,500.

**Delaware, O.**—Members of the Board of Public Service are investigating preparatory

to the erection of a new garbage disposal plant; the local plant has been condemned by the State Board of Health and the city has been ordered to build a new plant.

**Mansfield, O.**—Plans are under way for improving the park; address City Council for further information.

**Springfield, O.**—Arrangements are being made for beautifying the parks; Mayor W. R. Burnett is interested.

**Erie, Pa.**—Bids for grading Cascade Park, received by the Park Commissioners, were all rejected; the Commissioners were of the opinion that they were too high in view of the work to be done, and it was decided to leave the matter to Commissioners Bankson and Williams; they will endeavor to have the work done for \$200, or about \$20 less than the lowest bid.

The Board is also considering the construction of a dam in Mill Creek at Glenwood Park; the idea is to provide a large artificial lake, which would prove a pleasing feature; the City Engineer was requested to submit plans of the work.

**Johnstown, Pa.**—The Board of Health has decided to leave for another year the incinerating plant of the People's Garbage and Fertilizer Company at a rental of \$1,800 a year.

**McKeesport, Pa.**—Select Council has voted to concur in the action of Common Council in appropriating \$1,000 for the beautification and general improvement of the park and playgrounds along the Yough River front, and also passed a resolution to advertise for bids for laying a new cement walk in East Park at a cost not to exceed \$1,500.

**Reading, Pa.**—The Common Council is considering the construction of a disposal plant; \$52,000 is to be expended.

**El Paso, Tex.**—The city will offer for sale July 1 \$200,000 city improvement bonds.—Address Mayor Sweeney.

## BIDS RECEIVED

**Agnew, Cal.**—Contracts that have been awarded for construction of building at Agnew's State Hospital are as follows: Morrison Bros., Santa Clara, Cal., two duplicate buildings, \$57,788 for both; F. O. Engstrom Co., East Fifth and Colyton streets, Los Angeles, Cal., two duplicate buildings, \$176,038 for both; one building, \$45,850. Both these contractors will begin construction early in June. In addition to these buildings by contract the State is now building a kitchen, to cost about \$40,000; a dining hall, to cost about \$45,000, and will begin another building for patients next month, to cost about \$45,000.—Leonard D. Stacking, Medical Superintendent.

**Marysville, Cal.**—Charles Breeden was awarded contract for sprinkling streets at 15½ cents per block for streets and 1 cent for alleys for first sprinkling each day; for additional sprinkling during any day, 5 cents for streets only, and if a third sprinkling was ordered for same day the rate to be 2 cents per block; alleys are to be sprinkled once a day.

**Sacramento, Cal.**—Mayor Clinton L. White has approved the contract between the city and M. A. Nurse for excavating in South Side Park. The bid of Clark & Henery for improving I street with asphaltum, from Front to Sixth street, was accepted, and bids for improving T street, from Front to Twenty-eighth, were opened and referred to the City Surveyor.

**San Diego, Cal.**—Council has awarded contract for paving C street to the Barber Paving Company, at the following prices: Asphalt paving, per square foot, 19.4 cents; culvert at Eighth and C streets, complete, \$548; at Ninth and C streets, complete, \$450.—J. T. Butler, City Clerk.

**Willows, Cal.**—At the meeting of the Glenn County Board of Supervisors no action was taken in the matter of calling an election to determine whether the people shall pay for the Glenn-Butte bridge to be constructed across the Sacramento River at the Gianella site by direct tax or by issuing bonds, but the Supervisors simply signed the contract entered into with the Butte Board to pay the amount of the construction of the bridge; they also approved the contract submitted by the Cotton Brothers to do the work according to the plans and to complete it by a specified time.

**Canyon, City, Col.**—The contract for the construction of the water works system was awarded by the city to J. J. Lumsden of Grand Junction and J. R. Gordon of Pueblo, Col., at \$263,750.—L. D. Dawson, City Clerk.

**Washington, D. C.**—Cramp & Co., Philadelphia, Pa., have the contract, at \$2,500, for completing grading at the Walter Reid General Hospital, Washington.

**Jacksonville, Fla.**—Three bids for furnishing eight new cells were submitted and referred to Commissioner Seay. They are as follows: Pauly Jail Building Company, for eight new cells, twenty-four-hour test against saws, \$5,768; for removal and rebuilding of old cell of steel, \$100; for the



three old cells, \$45 is allowed. Diebold Safe and Lock Company bid on the same as follows: For eight new cells, \$6,995; for four strong and four female cells, \$6,175; for the placing of eight high-grade steel cells and removal of the old, \$5,100. Southern Structural Steel Company bid as follows: For eight light felon cells, \$4,750, to be done in ninety days; for the same, four of the cells to be light Bessemer steel, and for removal of the old cells, \$6,450; for four light and four heavy cells, \$2,850; for the same and for the removal of the faulty cell, \$3,750.

**Cairo, Ill.**—Hanes & Camery were awarded the contract for construction of sewers.—Wilbur B. Thistlewood, City Engineer.

**Evanson, Ill.**—Edward A. Barker & Son were awarded the contract, at \$620, for the construction of a sewer on Sherman avenue, and for a sewer in Florence avenue, at \$1,070.—Jos. E. Paden, Chairman Board of Local Improvements.

**Joliet, Ill.**—The Board of Local Improvements has awarded to William Moran the contract for the improvement of Morgan street by the construction therein of a brick pavement by special assessment as provided for in ordinance No. 2,285, at the following prices, to wit: 5,850 square yards brick pavement, including concrete foundation, at \$1.65 per square yard; 3,800 lineal feet curbing, including excavation and back-filling, in place complete, 45 cents per foot; 2,200 cubic yards of excavation, 45 cents per cubic yard; 600 cubic yards rock excavation, \$1.25 per cubic yard; 3,900 lineal feet farm drain tile, laid complete, 4 cents per foot; 550 lineal feet 8-inch sewer pipe, with excavation and backfilling complete, 45 cents per foot; 23 catchbasins, built complete, \$30 each; eight manholes, built complete, \$29 each.

William Moran was also awarded contract for the construction of a sewer, etc., in Baker avenue, at the following prices, to wit: 780 feet 10-inch pipe sewer, with Ts, Ys, etc., 29 cents per lineal foot; 150 feet 8-inch pipe sewer, with Ts, Ys, etc., 20 cents per lineal foot; 370 feet 6-inch pipe sewer, with Ts, Ys, etc., 14 cents per lineal foot; 670 feet excavation and backfilling under 6 feet in depth, 28 cents per foot; 625 feet excavation and backfilling over 6 feet and under 8 feet in depth, 42 cents per foot; four manholes complete, \$30 each; eight catchbasins complete, \$32 each.—William S. Welch, Clerk.

**Trenton, Ill.**—The following contracts have been let for furnishing water works materials: T. A. Hardman, Olney, for furnishing 9 tons of 8-inch, 60 tons of 6-inch, 63 tons of 4-inch cast-iron water pipe and 2½ tons of specials at \$3,070, and for laying pipe, 390 feet of 8-inch pipe 40 inches deep, at 20 cents per foot; 3,680 feet of 6-inch pipe, 38 inches deep, 17 cents; 4,850 feet of 4-inch pipe, 36 inches deep, 15 cents; for fire hydrants, to Rensselaer Manufacturing Company, Troy, N. Y., for 15 Corey hydrants, 4 inches, 2½-inch nozzle, \$21.50 each; gate valves, six 8-inch, \$18; five 6-inch, \$9.50; eight 4-inch, \$6; to Reeves & Skinner, St. Louis, Mo., for furnishing a 750,000-gallon Epping-Carpenter duplex compound steam pump, 159-h.p., to pump against a head of 100 pounds, \$12,000.—W. A. Fuller, Engineer, Chemical Building, St. Louis, Mo.

**Bloomington, Ind.**—W. H. Harris has been awarded contract for constructing 10.7 miles of sanitary sewers and purification plant, estimate, \$102,136, for \$101,019.61, while Hines & Brohn bid \$102,683.05; the successful bidder was high on most lines of sewer, but low on cast-iron pressure lines and the purification plant; the bids in 24 to 8-inch clay pipe follow, the depth of trench being 6 feet; clay and rock excavation, with macadam paving, to be excavated and relaid, and no ground water to be handled, 24-inch, \$2; 18-inch, \$1.25 and \$1.10; 15-inch, 85 cents; 12-inch, 78 cents; 8-inch, 60 cents; manholes, 6 feet, \$30; 10 feet, \$40; flush tanks, including flushing apparatus, \$100; wages of common labor, \$1.50 per day.—Ulysses S. Hanna, City Engineer.

**Ft. Ben Harrison, Ind.**—Dangles & Liss have contract, at \$1,847, for the construction of a gravel road.

**Ft. Wayne, Ind.**—The National Bridge Co., Indianapolis, has been awarded the contract by the County Commissioners for the construction of a reinforced concrete bridge, 200 feet span, over St. Mary's River, on Clinton street, at \$26,750.

**Muncie, Ind.**—The Board of Works, over the protests and threatened suits of the property owners, has awarded the contract for the pavement, with brick, of East Main street, from Madison street to Ohio avenue; the question of paving this roadway has been up for some time, and much controversy has been had over the subject. The contract was let to the contracting firm, Daniels & Lyst, of Anderson, for \$1.83 a square yard. The bids received were all on Metropolitan brick, and they run as follows: William Birch, \$2.11; Julius Haugh, \$2.02; John Gubbins, \$2.15; Gough Brothers, \$2.09, and Daniels & Lyst, \$1.83 a square yard.

The Board awarded two contracts for brick pavement; those of West Main street, from High street to Kilgore avenue, and Liberty street, from Seymour street to the Ft. W., C. & L. division of the L. E. & W. Railroad, to Contractors Daniels & Lyst of Anderson; the price for the brick pavement on Main street being \$1.83 per square yard and that on Liberty street, \$1.87 per square yard; Metropolitan brick will be used; these prices do not include the other improvements which go in line with the paving improvement.

**Wheatland, Ind.**—Hoy & Sons of Logansport, have contract for construction work on new school here, to cost about \$19,000.

**Winchester, Ind.**—The County Commissioners have awarded contracts to the Indiana Bridge Company, of Muncie, Ind., for the construction of 15 bridges and culverts in Randolph County, at about \$8,700.

**Boone, Ia.**—E. H. Samuelson has the contract, at \$3,264, for curbing and guttering Fourth street, from Boone to Bainerd street.—K. C. Kastberg, City Engineer.

**Dubuque, Ia.**—Street & Stueck have been awarded contracts for constructing a stone arch sewer in Washington street, 350 feet long, and in Coulter street, between Cedar and Sycamore streets, at \$16.75 and \$13.75 per lineal feet respectively.

**Leavenworth, Kan.**—Abstract of proposals opened May 27, for furnishing electrical supplies for new brick machine at United States penitentiary: Wesco Supply Company, St. Louis, Mo., price based on freight rate not exceeding that obtained by the company from the railroad, \$2,915.76; Hudson Electrical Supply Company, New York, \$2,886; F. E. Newberry & Co., St. Louis, Mo., reels carrying wire to be billed at \$50 additional and credited when returned (does not say at whose expense returned), \$2,946; National Electrical Supply Company, Washington, D. C., cable reels to be returned when empty at company's expense, delivery of material in twenty to thirty days, \$2,530; W. R. Osterlander & Co., 22 Dey street, New York, \$2,749.03; International Electric and Engineering Company, 148 Chambers street, New York, \$2,800; Commercial Electrical Supply Company, St. Louis, Mo., \$2,899; Standard Engineering Company, Philadelphia, Pa., \$3,040; G. and W. Manufacturing Company, 26 Cortlandt street, New York, \$2,894; Philadelphia Electric Construction Company, Philadelphia, Pa., in accordance with specifications except on I. T. E. laminated circuit breaker, company has figured on Condit circuit breaker, \$3,140; McKay Clay Works, 445 Rookery Building, Chicago, Ill., on vitrified clay conduit items only, \$170; Western Electric Company, 465 West street, New York, on first eleven items only, \$206.80; M. B. Austin & Co., Chicago, Ill., on two items of rubber insulated lead-in-cased cable only, \$1,012; Julius Andrae & Sons Company, Milwaukee, Wis., on portion of items as follows: Marble slab, \$16.50; angle iron frame, \$2.65; adjustable braces, \$1.50; switchboard bolts, 75 cents; brackets with sockets, etc., \$1.30; double pole, 1,000 amp., etc., \$13.65; double pole, 800 amp., etc., \$13.60; double pole, 200 amp., etc., \$4.75; double pole, 200 amp., etc., \$3.15; 15 feet bus bar copper, \$17.70; 2,900 feet lead cable, \$3,327.51; 580 feet lead cable, \$136.85; guy wire, \$6.38. Central Electric Company, Chicago, Ill.: Items 1 to 11 inclusive, if not assembled, for \$190; items 1 to 11 inclusive, if different instruments are mounted on the board the price will be \$210; items 12 and 13 (lead cable), \$2,465; items 14 and 15 (conduit), \$161.50; item 16 (galvanized wire), per 100 pounds, \$3.10; (alternate bid on item 16, on extra galvanized steel telephone wire at \$3.95 per 100 pounds, which is recommended by company); item 17, blocks and pulleys, \$4.10. Quotations are conditional upon company securing sufficient of order to enable them to defray charges of transportation. Western Electrical Company, Kansas City, Mo. (received 9 a. m., May 28, 1908), all items except conduits, \$2,640.12.

**Phillipsburg, Kan.**—T. C. Corrk, of Holsington has contract for construction work on new school, to cost about \$19,000.

**New Orleans, La.**—Captain William J. Hardee recommends to Chairman McCracken of the Finance Committee that the bid of R. S. Blome Company, Chicago, Ill., be accepted for repaving Tulane avenue, between Hagan and Carrollton avenues, with granite-toid blocked pavement, for \$88,979.25.

**Augusta, Me.**—The contract for installing a complete water-supply system at the State Muster Field has been awarded to the Steward Hardware and Plumbing Company, of Skowhegan, Me.

**Salisbury, Md.**—The following bid, received May 19, from the Standard Bitulithic Company, New York City, was accepted: For 16,000 square yards bitulithic pavement, \$2.39; for 10,750 feet of straight curb, 60 cents; 860 feet of curved curb, 85 cents; 450 feet granite curb, 25 cents; 330 feet of 20-inch terra cotta drain, \$1.50; 1,650 feet of 18-inch drain, \$1.20; 1,400 feet of 15-inch drain, \$1.05; 300 feet of

12-inch drain, 90 cents; 13 manholes, \$50; 8 corner inlets, \$60; 20 side inlets, \$60; four grate inlets, \$60; 3,000 square feet granite sidewalk, 20 cents; 375 cubic yards reinforced concrete retaining walls, \$18; 510 lineal feet galvanized iron fence, \$1.25; steam roller, with man, per hour, \$1; time for completion, 90 days.—T. Chalkley Hatton, Consulting Engineer.

**Lawrence, Mass.**—Contract has been awarded Joseph Wagenbach & Son for paving Common street with granite blocks at a cost of \$2.15 per square yard.

**Newburyport, Mass.**—The contract for furnishing about 6,000 feet of vitrified pipe for the Artichoke Water Supply system has been awarded by the Water Commissioners to A. P. Wilson; this pipe is to be used in connection with the filter beds at the Jackman ravine; the plan is to utilize the surface beds in summer or during the months in which there is no frost.

**Albion, Mich.**—Council has awarded the contract to the Albion Lumber Company of Albion, for the construction of a two-span steel girder bridge on Superior street, at \$16,381.

**Albert Lea, Minn.**—Anton Larson has been awarded contract for 649 square yards 4-inch brick pavement on 6-inch concrete and 2-inch sand foundation, at \$2.45 per square yard and 320 cubic yards clay excavation at 25 cents per cubic yard. D. M. Dominick has contract for 3,406 lineal feet concrete curb and drain for \$1,952.34 and 1,794 feet for \$906.10; Anton Larson bid \$2,200 on the first job.—C. J. Dudley, City Clerk.

**Detroit, Mich.**—The Council has awarded contracts for paving with cedar blocks, as follows: Dragon avenue, J. A. Mercier, 210 Hammond Building, Detroit, at \$18,144; Seymour avenue, Thomas E. Currie, 12 Peninsular Savings Bank Building, \$4,548; Livermore avenue, F. Porath & Son, \$7,503.—John J. Haarer, Commissioner of Public Works.

**Port Huron, Mich.**—John Delovia has been awarded the contract for repaving Quay street with Metropolitan brick at \$7,906. Van Camp & Co. have secured the contract for constructing 50,000 square yards of sidewalk.

**Cape Girardeau, Mo.**—W. C. Mullin, Kansas City, was awarded the contract, at \$57,519.34, for the construction of the sewer system of Cape Girardeau.—Chris. F. Betten, City Clerk.

**Columbus, Mont.**—The Security Bridge Company, Minneapolis, Minn., has been awarded the contract by the county for the construction of a bridge over the Yellowstone River, at \$19,750.

**Missoula, Mont.**—Contract was let for building new Court House at Missoula to Oliver Bridge Co., of Spokane, Wash.; price, \$165,239.—W. H. Smith, County Clerk.

**Bridgeton, N. J.**—The following are the bids opened by the Water Commission of Council for the construction of a reinforced concrete tank within the steel shell now standing on East Commerce street: Cramp & Sons Company, Commonwealth Building, Philadelphia, Pa., \$19,800; W. W. Lindsey, \$20,870; Hettinger & Co., Bridgeton, \$21,200; Schwiers & Sutton, \$21,975; F. J. Bass, \$22,400.

**Newark, N. J.**—The following contracts have been awarded: Flagging of Runyon St., from Johnson avenue to Osborne terrace, and South Twentieth street, from Springfield avenue to South Sixteenth street, to Anthony Gerber, for \$16,963 and \$10,057, respectively; flagging of North Twelfth street, from Sixth avenue to Seventh avenue, and Edmonds place, from Clinton place to Demarest street, to Alexander J. Milmo, for \$3,773.13 and \$1,715.70, respectively; flagging of Fifth street, from Bloomfield avenue to Chester avenue, to Philip and Peter Jannarone, \$7,535.50; paving North Thirteenth street, from Park avenue to Sixth avenue, and Springfield avenue, from Roseville avenue to city line, with bituminous concrete, to the Newark Paving Company, for \$8,550.50 and \$11,660, respectively; the paving of Parker street, from Elwood avenue to Montclair avenue, with brick, to Philip and Peter Jannarone, for \$12,372; paving of South Eleventh street, from Clinton avenue to Springfield avenue, with brick, and Badger avenue, from Clinton avenue to Hawthorne avenue, with granite on concrete, an Van Keuren & Son, for \$20,114.40 and \$35,006, respectively.

**Perth Amboy, N. J.**—A number of bids were opened by the Board of Aldermen and referred to the Committee of the Whole for constructing a vitrified brick pavement on Maple street, from Market street to New Brunswick avenue, as follows:

Henderson Brothers—Excavation, 48 cents per cubic yard; concrete, \$4.08 per cubic yard; old curb reset, 24 cents a foot; new curb laid, 69 cents a foot in concrete; Kushequa brick, \$1.72 per square yard; Scranton brick, \$1.59 per square yard; Reynoldsville brick, \$1.64 per square yard; Metropolitan vitrified brick, \$1.73 per square yard.

Johan Jensen—Excavation, 53 cents; concrete, \$5.50; old curb reset, 28 cents; new curb, 68 cents; Mack shale brick, \$1.48.

Standard Bitulithic Company—Excavation, 40 cents; concrete, \$4; old curb reset, 27 cents; new curb, 70 cents; Sunbury repressed shale block, \$1.79; Pennsylvania vitrified brick, \$1.84; Metropolitan block, \$1.97; Morgantown block, \$1.59.

Ira H. Crouse—Excavation, 45 cents; concrete, \$4.98; old curb reset, 11 cents; new curb, 50 cents; Scranton, Shawmut and Kushequa brick, \$1.22, \$1.33 and \$1.58, respectively; Metropolitan block, \$1.58.

Meagher & Smith—Excavation, 52½ cents; concrete, \$5.31; old curb, 20 cents; new curb, 52 cents; Kushequa, Scranton and Jamestown brick, \$1.48, \$1.41 and \$1.53, respectively.

For paving Jefferson street, from New Brunswick avenue to Maple street, with vitrified brick, the bids were:

Henderson Bros.—Excavation, 48 cents; concrete, \$4.08; old curb reset, 24 cents; new curb, 69 cents; Kushequa, Scranton, Reynoldsville brick, \$1.72, \$1.59 and \$1.64, respectively; Metropolitan block, \$1.73.

Ira R. Crouse—Excavation, 45 cents; concrete, \$4.98; old curb reset, 11 cents; new curb, 50 cents; Scranton, Shawmut and Kushequa brick, \$1.22, \$1.33 and \$1.58 respectively; Metropolitan block, \$1.58.

Standard Bitulithic Company—Excavation, 40 cents; concrete, \$4; old curb reset, 27 cents; new curb, 70 cents; Sunbury, Pennsylvania and Metropolitan brick, \$1.79, \$1.84 and \$1.97, respectively. Morgantown repressed shale brick, \$1.59.

Meagher & Smith—Excavation, 52½ cents; concrete, \$5.31; old curb reset, 20 cents; new curb, 52 cents; Kushequa, Scranton and Jamestown brick, \$1.48, \$1.41 and \$1.53, respectively.

Johan Jensen—Excavation, 53 cents; concrete, \$5.50; old curb reset, 28 cents; new curb, 68 cents; Mack shale brick, \$1.48.

For building concrete sidewalk and driveways around city hall and to move and grade for band stand the following proposals were received:

Johan Jensen—Concrete sidewalks, square yard, 22 cents; driveway, 8 cents; cubic yard of concrete, \$8; new curb, 80 cents a foot; old curb, 28 cents a foot; grading and moving band stand, \$200.

Carl C. Christensen—Sidewalk, per square foot, 28 cents; driveway, 15 cents; cubic yard of concrete, \$7.50; new curb per foot, 65 cents; old curb per foot, 25 cents; moving and repairing band stand, \$75.

Walter G. Quackenbush—Sidewalk, 24½ cents; driveway, 17½ cents; cubic yard of concrete, \$6.50; new curb, 92 cents; old curb, 30 cents; grading grass plots and stable yard, 2 cents per foot; moving and repairing band stand, \$400.

Charles Giannatasio—Sidewalk, per square foot, 28 cents; driveway, 17 cents; cubic yard of concrete, \$5.85; lineal foot of new curb, 63 cents; old curb, 35 cents; moving and repairing band stand, \$247; sow grass for City Hall and New Brunswick avenue, 2 cents per foot; removing the trees, each \$20.

A. K. Jensen—Sidewalk, 26 cents; driveway, 10 cents; cubic yard of concrete, \$6.25; lineal feet of new curb, 68 cents; old curb, 16 cents; grading grass plots and moving band stand, \$447.

Meagher & Smith—Sidewalk, 24 cents; driveway, 10 cents; cubic yard of concrete, \$6; new curb, 71 cents; old curb reset, 20 cents; grading and moving band stand, \$352.

Salem, N. J.—The contract for constructing the Penn's Grove and Dancer's Mill road has been awarded by the Board of Chosen Freeholders to George F. Snider & Co., Philadelphia, Pa., at \$25,271.—J. F. Ayres, Director of Board.

Brooklyn, N. Y.—Joseph Paolino, 1263 Fifty-ninth street, was low bidder, at \$13,062, for regulating, grading, curbing and laying sidewalks on Fourteenth avenue, from Thirty-ninth to Sixtieth streets, and the Uvalde Asphalt Co., 1 Broadway, Manhattan, was the lowest bidder, at \$3,091, for regulating and paving with asphalt pavement the roadway of Halsey street, from Knickerbocker avenue to borough line, for the Borough of Brooklyn.

Ft. Slocum, N. Y.—M. S. Wright, South River, N. J., has the contract, at \$6,373, for the construction of a sewer at Ft. Slocum.

Ithaca, N. Y.—Council awarded contract to the McGreevy Construction Company, city, for curbing and gutter work on various streets.

Lockport, N. Y.—Allen & Christy, an out-of-town firm, was awarded the contract for laying the cement sidewalk on Walnut street, between Locust and Washburn streets, at their bid of \$1,315.80, and they are to give a bond in the sum of \$1,500 for the faithful performance of their agreement; there was only a matter of \$290 between the firm's bid and a bid by a Lockport contracting firm, and at first it was thought that it would be a good thing to give it to the local concern, but it was decided that this action might give the city of Lockport a reputation of not wanting outside bidders on city con-

tracts, and the action as stated above was taken.

New York, N. Y.—All bids for the construction of the Walkill pressure tunnel, being a portion of the Walkill division of the Catskill aqueduct, crossing under the valley of the Walkill River, in the towns of New Paltz and Gardiner, Ulster County, New York, were rejected on May 28 by the Board of Water Supply.

Bids were opened on June 2 by the Board of Water Supply for the construction of the Rondout siphon of the Catskill aqueduct. There were five bids for the work, as follows: The Degnon Contracting Company, the T. A. Gillespie Company, 90 West street, New York; S. Pearson & Sons; the MacArthur Bros., 11 Pine street, New York; the Bradley Contracting Company, New York. There were seventy different items on which each firm bid. The lowest offer was made by the T. A. Gillespie Company, and not by S. Pearson & Sons, as reported. The bid was \$6,290,803. As the labor organizations are not expected to make any opposition to the Gillespie company the Rondout contract will be awarded to that firm.

Rochester, N. Y.—Bids for street improvements were opened by the Board of Contract and Supply. The streets to be improved and the lowest bidders were as follows: Stewart street, 5-inch block paving, Whitmore, Rauber & Vicinus, \$9,616; Earl street, brick paving, Hagaman, Miller & Hagaman, \$3,143; Locust street, brick paving, Frank V. Brotsch Company, \$10,611 for Reynoldsville wire cut block; Flower City Park, Whitmore, Rauber & Vicinus, \$5,998; Wait street, brick paving, Frank V. Brotsch Company, \$3,998 for Reynoldsville wire cut block; Evergreen street, brick paving, from Conkey to Clifford avenue, Julius Friedrich & Co., \$12,942 for Clearfield or Mack fire clay brick.—Edwin A. Fisher, City Engineer.

Rome, N. Y.—The Board of Public Works opened bids for the improvement of several streets. Following are the names of the bidders, the amounts of the bids, the streets to be improved and the number of yards in each street:

West Willett street, Washington to George streets, 6,402 square yards: Warren Brothers Company, bitulithic on concrete, \$17,441.85; asphalt or asphalt block, \$16,801.65; bitulithic on bituminous base, \$17,441.85; Interstate Paving Company, concrete macadam, \$14,590.20; Craven & Owens, Gowan's brick or block, \$17,012.55; Barber Asphalt Paving Company, asphalt, \$17,462.47; M. F. Dollard, Mack brick or block, \$16,837.30; Warner-Quinlan Asphalt Paving Company, asphalt or asphalt block, \$16,291.23.

S. George street, Dominick street to railroad, 3,264 square yards: Warren Brothers Company, bitulithic on bituminous base, \$9,014.93; asphalt, \$9,080.21; bitulithic on concrete base, \$9,471.89; Interstate Paving Company, concrete macadam, \$7,773.40; Cramond & Owens, Gowan's brick or block, \$9,110.70; Warner-Quinlan Company, asphalt, \$8,710.91; M. F. Dollard, brick or block, \$9,642.96; Barber Asphalt Paving Company, \$9,246.77.

Garden street, George street to the canal, 5,749 square yards: Warren Brothers Company, asphalt, \$15,416.02; bitulithic on bituminous base, \$15,990.82; bitulithic on concrete base, \$15,990.82; Interstate Paving Company, concrete macadam, \$13,557.30; Cramond & Owens, brick, \$15,567.10; Warner-Quinlan Asphalt Paving Company, asphalt or asphalt block, \$14,928.93; Barber Asphalt Paving Company, asphalt, \$16,049.71; M. F. Dollard, brick, \$15,615.45.

West Willett street, Washington to George streets, 1,358 square yards—Warren Brothers Company, bitulithic on bituminous base, \$3,412.50; asphalt, \$3,276.70; bitulithic on concrete, \$3,412.50; Interstate Paving Company, concrete macadam, \$2,885.80; Cramond & Owens, brick, \$3,419.70; Barber Asphalt Paving Company, asphalt, \$3,566.34; M. F. Dollard, brick, \$3,458.70; Warner-Quinlan Asphalt Company, asphalt, \$3,407.70.

East Park street, James to Spring street, 1,028 square yards—Warren Brothers Company, asphalt, \$3,565.80; bitulithic on concrete base, \$3,668.60; bitulithic on bituminous base, \$3,668.60; Interstate Paving Company, concrete macadam, \$3,679.80; Cramond & Owens, brick, \$2,436.80; Barber Asphalt Paving Company, asphalt, \$3,843.44; M. F. Dollard, brick, \$3,797.20; Warner-Quinlan Asphalt Paving Company, \$3,620.80.

Fort Stanwix Park South, James to Washington street, 952 square yards—Warren Brothers Company, bitulithic on concrete base, \$3,054.76; asphalt, \$2,959.56; bitulithic on bituminous base, \$3,054.76; Barber Asphalt Paving Company, asphalt, \$3,053.96; M. F. Dollard, brick, \$2,987.80; Interstate Paving Company, concrete macadam, \$2,760.20; Rome Cement Stone Company, concrete macadam, \$2,090.80; Warner-Quinlan Company, asphalt, \$2,918.68; Cramond & Owens, brick, \$2,866.

Syracuse, N. Y.—The city has closed a

contract with the United States Cast Iron Pipe and Foundry Company at \$23 for 20,000 tons cast-iron pipe.

Utica, N. Y.—The Board of Contract and Supply awarded contract to A. W. Fitch, city, for a 12-inch sewer in Parker street, from Clinton to Jason street.

Yonkers, N. Y.—The United States Cast Iron Pipe Company was awarded contract for cast-iron pipe and specials, as follows: Bell and spigot pipe, \$25.60; 27,000 pounds special castings, 2½ cents per pound; 20-inch and 22-inch flange pipe, 1½ cents per pound; 5,600 pounds flange specials, 4 cents per pound. The following proposals were also received: John Fox Company: Bell and spigot pipe, \$26.24 per ton; 27,000 24-inch special castings, .0245 cents per pound; 20-inch flange pipe, 1½ cents per pound; 22-inch flange pipe, 2½ cents per pound; 5,600 pounds flange special castings, 3½ cents per pound.

R. D. Wood Company: Bell and spigot pipe, \$26.50 per ton; 27,000 pounds special castings, 2½ cents per pound; 20-inch and 22-inch flange pipe, .016 cents per pound; 5,600 pounds flange specials, 3½ cents per pound. Warren Foundry Machine Company: Bell and spigot pipe, \$26.50 per ton; 27,000 special castings, .024 cents per pound; 20 and 22-inch flange pipe, 1½ cents per pound; 5,600 pounds flange specials, 4 cents per pound. Charles Millar & Son Co.: Bell and spigot pipe, \$26.50 per ton; 27,000 pounds special castings, 2½ cents per pound; 20 and 22-inch flange pipe, 2 cents per pound; 5,600 pounds flange specials, 4½ cents per pound.—James D. McIntyre, Secretary, Board of Contract and Supply.

Durham, N. C.—The Durham County Commissioners have awarded the contract to the Carolina Construction Company, Burlington, N. C., for the construction of seven reinforced-concrete bridges, 200 feet, 75 feet, and five from 15 to 20 feet in length, at about \$14,000.

Canal Dover, O.—The Board of Public Service awarded the contracts for the extension of the water works as follows: For furnishing pipe, to the Massillon Iron and Steel Company, Massillon, Ohio, at \$22.60 per ton for 4-inch and \$21.60 for 6-inch pipe; for trenching, laying and filling, to Philip Sheets, at 13 cents per foot.

Cincinnati, O.—Clerk John J. Wenner, of the Service Board, has been ordered to prepare a contract with the Cincinnati Reduction Company for the removal of garbage, for a term of five years.

Coshocton, O.—Bids were received for 5,650 square yards 4-inch block pavement on 8-inch gravel and 2-inch sand foundation, tar filler, including 4,558 cubic yards earth excavation, and 3,000 linear feet concrete straight curb, 64 of curved and 200 headers, the total being: Brode and Turner, \$11,069; Downs & Downs, Canton, \$7,333.64; defective; Kinnear Bros., Columbus, \$9,341.55; W. F. Emerson, Isleta, \$9,523.10; T. J. Normon, Fresno, R. F. D., \$7,341.38; John Hall, city, \$7,363.79; John N. Kissner, city, \$8,481.58; Geo. Bock & Son, city, \$8,183.85; T. H. Burrell, city, \$9,105.30; A. G. Pugh, Columbus, \$9,842.—A. M. Fisher, City Engineer.

Dayton, O.—The contract for the paving of Ludlow street with Townsend block, from Washington to Stout street, has been awarded by the Board of Public Service to the J. E. Conley Company, at \$18,710.

East Liverpool, O.—The Board of Health has let the contract for the collection and disposal of garbage and night soil to Rinehart Brothers. Those who submitted bids were the Sanitary Reduction Company, Allison & McCullom, the East Liverpool Reduction Company, and Rinehart Bros. A. E. Bowlder, who represented the Sanitary Reduction Company, claimed his people were the lowest bidders, and gave notice that the matter would be investigated. A defect in the bid of Allison & McCullom disqualified that firm from competing.

Hamilton, O.—The County Commissioners awarded the contracts for the construction of the first two sections of Crawford's run sewer as follows: First section, from the river to the east side of Peck avenue, to Frank J. Davis, at \$8,700; second section, from Peck avenue to the closed sewer, to C. D. Bennett, of the Bennett Construction Company, at \$9,325.—J. E. Brate, County Auditor.

Lisbon, O.—The County Commissioners awarded to U. V. Gaskill the contract for the construction of two steel bridges and for furnishing steel bridge beams.

Mansfield, O.—The following bids have been received by the Board of Public Service for street improvements: Blymyer avenue, Kreedone block, cement sidewalk, to C. M. Rowland, at \$2,671; Bowman street, concrete foundation, Metropolitan brick and asphalt filler, to F. Gandert & Son, \$15,660; Chestnut street, concrete, tar filler and Metropolitan brick, not awarded; Newville road, limestone foundation, tar filler, Big 4 brick, to J. W. Paule, \$7,227; West First street, concrete foundation, Metropolitan brick, tar filler, cement walk, to F. Gandert & Son, \$6,821;



Franklin avenue, sandstone foundation, Metropolitan brick, tar filler, to Herring & Son, \$4,627; East Third street, limestone foundation, Medal block, asphalt filler, to Herring & Son, \$7,979.

C. M. Rowland has been awarded contracts by the Board of Public Service for the construction of sewers in Wayne street and in Sixth and Sycamore streets, at \$3,285 and \$5,389, respectively.

Marysville, O.—Welch & Jones, city, have been awarded the contract for the paving of Walnut street and West alley; a gravel foundation is to be used and an inspector is to be selected to superintend the work in conjunction with City Engineer Kennedy.

Toledo, O.—The Rohmheld Construction Company, 171 La Salle street, Chicago, Ill., has been awarded the contract for the construction of a steel bridge over Swan Creek, Toledo, for the Ohio Electric Company at about \$25,000.

Twenty-three bids for heating contracts on work that is to be done in ten Toledo school buildings this summer were opened at a special meeting of the Board of Education. Offers were requested on two forms of heating, steam blast having been selected for Auburndale, Erie, Warren, Monroe, Newbury and Newton schools, and furnace or hot air blast, for Segur, Walbridge, Washington and southeast Toledo schools. As a whole the bids on the steam blast work of the Toledo Heating and Construction Company were, perhaps, the lowest, being as follows: Erie school, \$5,812; Newton, \$6,899.82; Warren, \$6,262.95; Newbury, \$6,272.86; Monroe, \$6,181.15, and Auburndale, \$8,180.

As an average the bids of the American Heating and Warming Company on furnace blast are given: Southeast school, \$3,294.88; Washington, \$2,670.94; Walbridge, \$3,580.57; and Segur, \$3,791.84.

Three of the bids were on regulating devices which are necessary where furnace blast is used. The average bid on regulation was \$490.

Guthrie, Okla.—The city has awarded the contract to William Cooper, Guthrie, at \$23,541, for constructing a 2,000,000-gallon water filtration plant.

Portland, Ore.—The following contracts were awarded by the Street Commissioner of the Executive Board: The Barber Asphalt Paving Company, improvement of East 20th street, at \$4,339; Star Sand Company, improvement of Harding street, from southwestern line of Goldsmith street to northeast line of River street, at \$396; Pacific Bridge Company, improvement of Knott street, at \$10,545 (this figure was 10 per cent. in excess of the estimate of the City Engineer, but was granted on his recommendation after considering an increased cost for crushed rock); R. J. Debuhr, improvement of Garfield avenue, at \$6,562; and the Barber Asphalt Paving Company, improvement of East 17th street, at \$17,643.24 (this bid was also 10 per cent. in excess of the City Engineer's estimate).—Douglas W. Taylor is City Engineer.

Donegal, Pa.—The Board of Supervisors of the township has let contracts for 1,425 cubic yards of broken limestone to be spread on five different sections of the township roads. Two of the sections are extensions of roads previously stoned. The amount of the contracts foot up \$2,793.25. The list of contracts is as follows:

John Neely, 300 yards, at \$1.75, on the Claysville-Dunsfort road, beginning at the Campsey quarry, \$525; Mart Nickison, 175 yards at \$1.80, on the Claysville-Dunsfort road, at the west end of the section stoned in 1907, \$215; Charles DeFrance, 200 yards at \$2.00, north of Coon Island, at the end of section stoned last year, \$400; Samuel Daugherty, 275 yards at \$2.10, north of Coon Island, \$577.50; George Liggett, 425 yards at \$2.05, in the West Liberty road near the McDermott residence, \$871.25; James Taylor, 50 yards at \$2.09, on the Burnsville road from the West Alexander borough line, \$104.50.

Easton, Pa.—The Belvidere Water Company has awarded the contract for erecting a standpipe, 9x160 feet, to Tippet & Wood, of Philipsburg, Pa., at about \$6,000.

Gallitzin, Pa.—James K. Malone, Hollidaysburg, has been awarded a contract for building 3,000 feet of terra cotta and concrete sewer at Gallitzin; there were seven bidders; Mr. Malone's bid of \$3,996.70 was the lowest one.

Greensburg, Pa.—Ex-Sheriff P. F. McCann, of Greensburg, has secured the contract for the construction of a stretch of State road in Armstrong County. The road is over two miles in length and runs out of Monroeville, near Kittanning, and includes some heavy grading and the construction of seven bridges. Five of these will be of steel, two of which will have 60-foot spans and the others 45-foot spans. The other two will be concrete arches.

The School Board at a recent meeting let contracts for the erection of two new buildings for the school district during the sum-

mer to the McCormick Lumber Company, of Uniontown. One of these buildings is to be erected in the Seventh Ward and the other in the Fourth Ward. The contract will aggregate about \$70,000. The general bids follow:

Fourth Ward Building—Duquesne Construction Company, \$39,900; Thomas E. Wible, \$37,422; J. A. Truxal, \$40,185; McCormick Lumber Company, \$34,960; S. C. Lindsay, \$39,825; J. E. Myers, \$35,187.24; Henry Shenk Company, \$47,023; M. R. Welty, \$39,372; George M. Hall Company, \$40,979; Homestead Lumber Company, \$36,836.67.

Seventh Ward Building—Duquesne Construction Company, \$37,465; John W. Burrell, \$38,870; J. A. Truxal, \$38,138; McCormick Lumber Company, \$32,700; S. C. Lindsey, \$37,324; J. E. Myers, \$32,856.53; Henry Shenk Company, \$44,975; M. R. Welty, \$37,574; George M. Hall Company, \$38,610; Homestead Lumber Company, \$36,000.

The foregoing bids were based upon the use of stone trimmings and slate roofing. Supplemental bids for other materials were submitted as requested. The Board decided upon tile roofs and terra cotta for trimmings on the Fourth ward building. When this was done the McCormick bid for the Fourth ward building was \$33,880, and the Myers bid \$34,702.24. The new figures for the Seventh ward building were: McCormick Company, \$33,355, and Myers, \$33,591.53. A mottled brick was selected for the Fourth ward building and a Bradford red brick for the Seventh ward.

The American Warming and Ventilating Company was unanimously awarded the contract for heating the buildings. Its representative is H. L. Williams, of Pittsburg.

Hanover, Pa.—John R. Bittinger, city, and William B. Johnson, of Spring Grove, were awarded contract for building a State road from Spring Grove to Dub's mill—distance about two miles, by the State Highway Department at Harrisburg; the cost of the road, as estimated by the civil engineers, was about \$25,000, and bids ranged from \$25,000 to \$40,000; eight contractors submitted bids.

Harrisburg, Pa.—The city Highway Department received only three bids for street paving work, although nine sections were offered, the companies refusing to bid because they deemed \$1.80 per yard, a price at which they jumped a few years ago, too low for bidding at present. Bids were also opened on the resurfacing of Walnut street for the third time, but the figures were very high and there may be readvertisement.

The sections on which bids were received were as follows:

State street, Tenth to Thirteenth, 8,300 square yards paving and 3,200 feet curbing, Barber Asphalt Company, \$1.97 per yard and 99 cents per foot; Warner-Quinlan Company, \$1.99 and 95 cents; Stucker Bros. Construction Company, \$1.99 for brick and 99 cents for granite curbing and 54 cents for steel bound granolithic.

Crescent, Mulberry to Berryhill, 5,800 yards and 3,200 feet, Barber, \$1.97 and 99 cents; Warner, \$1.93 and 94 cents.

Thompson, Fifteenth to Seventeenth, 550 yards and 1,300 feet, Barber, \$1.97 and 99; Warner, \$1.94 and 94.

The bids on resurfacing Walnut street from Third street to Filbert, 4,850 yards, were: Barber, \$1.86; Warner, \$1.934.

No bids were received for Green street, Reily to Maclay, for which bids were too high last year; for Zarker, Sixteenth to Seventeenth, Dauphin, Sixth and Seventh; Elm, Sixteenth to Eighteenth; Seventeenth, Walnut to State; and the lower end of Fifth street, aggregating 17,050 square yards.

The bids received will be advertised for thirty days and sent to Councils for action, if Highway Commissioner Lynch decides that they are advantageous.

Huntingdon, Pa.—The Borough Council has received the following bids for the construction of a sewer system: Anthony Anstead, Altoona, Pa., \$37,987; Central Construction and Supply Company, Harrisburg, Pa., \$37,406; John Goll & Co., Philadelphia, Pa., \$28,005; Ahrens Construction Company, Lewistown, Pa., \$25,725 (awarded contract); H. E. Stall & Sons, Altoona, Pa., \$34,471; C. A. Malone, Hollidaysburg, Pa., \$26,232; Ferry & Co., Grafton, Pa., \$27,895; Saupp & Dhrew, Altoona, \$37,768; Fritz & Frey, Philadelphia, \$38,892; Albrecht & Leader, Reading, Pa., \$37,182; F. Guiterrez, Huntingdon, Pa., \$27,641; Maynard & Flynn, Pittsburg, Pa., \$33,191.

Kingston, Pa.—Council has awarded a contract for paving Rutter, College and Chestnut streets to Robert W. Hensen of Geneva, N. Y., his bid of \$42,362.38 being the lowest of three submitted; others who presented proposals were: D. M. Rosser, \$43,794.75; Bolton G. Coon, \$44,642.91. The bid of the successful contractor calls for paving the three streets with Standard Clearfield brick, with curbs having Wainwright steel protectors.

Monessen, Pa.—The Poor Directors of Washington County have let the contract for a considerable amount of grading around the new building to William Pickett & Co. at 35 cents per cubic yard.

New Brighton, Pa.—The entire length of Fifth avenue will be paved and sewered and curbed by J. H. and M. E. Miller, New Castle contractors. The Pennsylvania railroad, in order to secure a right of way for a track along Fifth avenue, New Brighton, must pave and curb and sewer the entire street, which is a mile in length. The contract price in round numbers is \$37,000.

Newcastle, Pa.—Maynard & Flynn, Pittsburg, Pa., have been awarded contract for paving with brick Spring avenue for \$9,039 and Wayne street, \$7,963.

Philadelphia, Pa.—Contract for new Jeremiah Nicholas School at Sixteenth and Wharton streets has been awarded to Cramp & Co. New structure is to be brick and fireproof and cost \$120,000.

Pittsburg, Pa.—The city, by Mayor Guthrie and Director Shepherd, has awarded a contract to Booth & Flinn for repaving Fifth avenue from Sixth avenue to Brady street for \$39,637. Many small contracts were also let. Contracts for repaving three Northside streets were held up because all bids were over the appropriations.

Scottsdale, Pa.—At a special meeting the Borough Council received three bids for pipe for the Anderson Run sewer; the bid was on 3,200 feet of straight 24-inch double strength No. 1 pipe delivered in Scottsdale, and the bids were as follows: Elcher & Graft, 84½ cents per foot, making a total of \$2,596; J. I. Dick, 75 cents per foot, \$2,400; Loucks Hardware Company, 66 cents per foot, \$2,128; the contract was let to the Loucks Hardware Company.

Uniontown, Pa.—Beatty Bros. & Co., contractors for the new city building, have let the heating contract to the Peerless Heating and Supply Company, city. Mr. Dewalt, the manager, has started his men at work on the system, which will be a low pressure steam system. It provides for 47 radiators.

Wilkes-Barre, Pa.—The paving contract has been awarded to B. G. Coon of Kingston, his bid being \$2.03 per square yard, and D. M. Rosser received the contract for curbing at 68 cents per foot. The other bidder was Frank Kuss of this city.

Rapid City, S. D.—The following were the bids submitted on new school building: Phillips & Bartlett, Lead City, \$18,546; Henry Birnbaum, Rapid City, \$17,571; L. R. Ryther, Rapid City, \$17,787; M. W. Burgh, Rapid City, \$17,910. Contract awarded to Henry Birnbaum.—Ethan Allen, Secretary Rapid City Board of Education.

Yankton, S. D.—The Goetz Construction Company was awarded the contract for setting curb along west side of the U. S. public building.

Chattanooga, Tenn.—The contract has been awarded by the County Board of Education to E. P. Norris, Dunbar avenue and Spruce street, Chattanooga, for the construction of concrete walks and fence and limestone curbing, at \$4,680.—W. S. Beck, Chairman Board.

Johnson City, Tenn.—Bids were received May 28 for a sewer contract as follows: Curran, \$16,487.30; Wardrop, \$20,712.60; S. S. Co., \$21,227.25; Ball, \$15,052.15; Pouder, \$14,936.14; Duke, \$15,171.42; Flinn, \$16,158.20. The items of the successful bidder, Pouder, were as follows: 430 feet of 8-inch pipe, 61 cents; 16 Ys, \$1; 835 feet 10-inch pipe, \$1.06; 16 Ys, \$1.88; 200 feet of 12-inch pipe, \$1.16; 1 Y, \$2.03; 785 feet of 15-inch pipe, \$1.62; 25 Ys, \$2.69; 1,083 feet of 18-inch pipe, \$1.70; 23 Ys, \$3.29; 1,100 feet of 20-inch pipe, \$1.95; 23 Ys, \$4.54; 2,815 feet of 24-inch pipe, \$2.35; 40 Ys, \$5.89; 1,420 manholes, \$27.50; 24 feet of 12-inch C. I. pipe, \$2.71; 36 feet of 15-inch pipe, \$2.98; 24 feet of 20-inch pipe, \$3.28; 96 feet of 24-inch pipe, \$3.50.—L. N. Wilson, Jr., City Engineer.

Jackson, Tenn.—The contract for the erection of a new hospital has been awarded to E. J. Parrish at a bid of \$9,225.

La Follette, Tenn.—Thos. McFarland & Co., of Knoxville, have closed the contract with Council for \$40,000 worth of street improvements, sewers and sidewalk; this is being done under the abutting property plan, the property owners agreeing to pay for their portion of it.

Knoxville, Tenn.—Bids on about five miles street paving work by four contractors were opened by Council and all the bids were referred to the City Engineer and committees, to be compiled and reported back to the Council. The companies that submitted bids are the Southern Bitulithic Company, of Nashville; the Southern Paving and Construction Company, of Chattanooga; the Barber Asphalt Paving Company, of Philadelphia, and the McCarthy Improvement Company, of Davenport, Ia. The three first mentioned bidders held contracts in this

city when street improvement work was in progress last year, the Iowa concern being the only new competitor to enter the field.

The McCarthy Improvement Company entered a bid of \$2.05 per square yard for asphalt and \$1.87 for asphaltic concrete. The bid for brick paving was \$2.43, \$2.24, \$2.14 and \$2.29 according to the class and quality of the filler to be selected, etc.

The Southern Paving and Construction Company's bid is \$2.20 per square yard for asphalt paving and \$2.50, \$2.62 and \$2.45 per square yard for brick, according to the class and quality of filler, etc.

The Barber Asphalt Paving Company submitted a bid of \$2.34 per square yard for asphalt paving.

The Southern Bitulithic Company submitted three proposals. The first proposal is on the basis of monthly payments by the city for its share of the work, estimates to be made by the City Engineer, and a final 10 per cent. to be retained as a maintenance guarantee. On this basis, the bid is for bitulithic paving at \$2.44 per square yard.

The second proposal is on the monthly payment basis also, but provides for a surety bond maintenance guarantee. The bid on this basis is \$2.22 per square yard.

The third and lowest estimate is on the same monthly payment basis by the city, also cash payments by property owners or payment in bonds for the property owners' share of the work, the maintenance guarantee to be a surety bond. On this basis the bid is \$2.15 per square yard.

The asphalt bids are on a thinner asphalt wearing surface than last year, the depth of the wearing surface being reduced from two inches to one and a half inches.

**El Paso, Tex.**—The El Paso County Commissioners have awarded the contract for the erection of an addition to Court House, to Hammond & Calhoun, city, at \$27,098, for frame construction.

**Rosebud, Tex.**—The School Board has let the contract for the erection of new school building to T. M. Sapp, of Rosebud, for \$25,000, including heating plant.—F. Buggin, President School Board.

**Tulsa, Tex.**—Contract has been awarded to Scott, Roland & Farhart for new school to be brick, three stories high, and cost \$20,000.

**Ogden, Utah.**—The bids received for the construction of a reinforced concrete arch of 65-foot span across the Ogden River are as follows: Jorgensen Bros., 420 Kearney street, San Francisco, Cal., \$7,550; Midland Bridge Company, Salt Lake City, Utah (Box 1055), \$5,875; M. F. Levy Construction Company, Denver, Col., \$5,085; Pueblo Bridge Company, Pueblo, Col., \$4,979; Wm. Doyle, contractor, 3232 Washington avenue, Ogden, Utah, \$3,742. The contract has not yet been awarded, but will probably be to the lowest bidder.—A. F. Parker, City Engineer.

**Salt Lake City, Utah.**—The following bids were received for Sewer Extension No. 170 on May 22: Davis & Heuser, \$1.66 per lineal foot; Jas. Kennedy, \$1.72; Strange & McGuire, \$1.78; J. D. Hanley, \$1.90. Total length of sewer, 1,477.6 lineal feet; depth of trench, 10.1 feet. Davis & Heuser's bid, \$1.66 per lineal foot, would amount to \$2,452.82. The contract was awarded to Davis & Heuser by the Board of Public Works at the opening of the bids, but is still unconfirmed by the City Council, and has been referred to the Finance Committee.

The following bids were received for Sewer Extension No. 194: J. D. Hanley, \$1.54 per lineal foot; Strange & McGuire, \$1.35; Davis & Heuser, \$1.66; James Kennedy, \$1.31. The contract was awarded to Jas. Kennedy and confirmed by Council May 25. The total length of the sewer is 4,780 lineal feet; depth of trench, 8.8 feet. The total cost at contract price, \$1.31 per lineal foot, would amount to \$6,261.80.

The following bids were received for Sewer Extension No. 192: Strange & McGuire, \$1.39 per lineal foot; Davis & Heuser, \$1.66; J. D. Hanley, \$1.76; Jas. Kennedy, \$1.28. Contract was awarded to Jas. Kennedy at the time of the opening of the bids and confirmed by the City Council, May 25, 1908. Total length of the sewer is 4,104 lineal feet; depth of trench, 8.4 feet. The total cost at the contract price of \$1.28 per lineal foot would amount to \$5,253.12.—L. C. Kelsey, City Engineer; Geo. O. Chaney, Principal Assistant Engineer.

**Portland, Ore.**—The U. S. Cast Iron Pipe and Foundry Company has been awarded contract for 1,000 tons 6-inch and 8-inch cast-iron pipe and fifty tons special at \$33,650. The American Cast Iron Pipe Company, Birmingham, bid \$33,775; Oregon Iron and Steel Company, \$36,000; R. D. Wood & Co., Philadelphia, \$37,350.—D. D. Clarke, Engineer, Water Board.

For building.—A. M. Walkup, Richmond, Va., \$12,788; Harrison Construction Company, Petersburg, Va., \$10,966; D. J. Phipps, Newport News, Va., \$10,605; G. B. Keeler & Son, Petersburg, Va., \$9,736.

For cell work.—American Iron and Wire

Works, Chicago, \$15,330; Camden Iron Works, Salem, Va., \$14,050; Norfolk Iron and Wire Works, Norfolk, Va., \$12,400; Champion Iron Works, Kenton, O., \$14,829; Pauley Jail Building Company, St. Louis, \$15,596; Stewart Iron Works, Cincinnati, \$12,000; Adams Steel and Wire Works, Joliet, \$11,980; Van Dorn Iron Works, Cleveland, O., \$11,817.

The committee has recommended to the Common Council the acceptance of bids of G. B. Keeler & Son, \$9,736; Van Dorn Iron Works, Cleveland, O., for cell work, \$11,817.—Chas. R. Walsh, Chairman Public Property Commission.

**Rapidan, Va.**—The Canton Bridge Company has been awarded contract by the County for the construction of a 3-span steel bridge with concrete abutments and piers here, at \$7,366.—W. E. Coons, Commissioner's Clerk.

**Roanoke, Va.**—A new fire station, to cost about \$10,000, is to be erected at the corner of Rorer avenue and Sixth street. A. L. Marshall has been awarded contract for construction work.

**Everett, Wash.**—Council has awarded the contract for street improvements in the Capitol Hill section to A. Thorsing, at \$54,451.

**Seattle, Wash.**—The Board of Public Works has awarded to Ide & Jones the contract for the construction of the Beacon Hill reservoir at \$77,455, the contract being contingent upon the approval of the bonds.

R. H. Thomas, City Engineer, has reported upon the estimated cost of the following street improvements: Twenty-fifth avenue north and other streets, concrete sidewalks, \$26,100; Fourth avenue north and other streets; Eleventh avenue north and other streets, concrete sidewalks, \$16,940; First avenue and other streets, concrete sidewalks, \$4,700; Twenty-fourth avenue north and other streets, concrete walks, \$6,000; West Galer street and other streets, asphalt paving, \$81,400.

**Tacoma, Wash.**—At the special meeting of the Board of Education to open bids on the proposed new Jefferson School building, North Twelfth street and Boulevard avenue, and the addition to the Willard School, South Thirty-second and C streets, thirteen contractors were present and twenty-two bids on both jobs were opened. The Jefferson School will be an eight-room structure, built on the unit plan designed by School Architect Frederick Heath. There were nine bids, that of Carlson & Hasslen for \$11,872 being the lowest. The other bids were: W. E. Poindexter, \$13,985; W. J. Collis, \$13,250; M. C. Gass, \$14,905; John Wallin & Co., \$12,410; O. F. Larson, \$13,360; M. J. Rounds Company, Seattle, \$13,838; A. S. Black, \$11,973; Westerfield & Von Bushlick, \$12,480.

The lowest bid on the Willard School, improvements of which will include a four-room addition and extensive interior alterations, was made by O. F. Larson, whose figure was \$20,987. Other bids were: W. E. Poindexter, \$21,900; W. J. Collis, \$21,900; M. C. Gass, \$22,874; Blows & Tuell, \$23,494; Charles A. Batrz, \$23,435.80; C. A. Opperman, \$22,000; Miller & Biehn, \$21,987; J. E. Bonnell, \$21,198; O. F. Larson, \$20,987; E. J. Rounds & Co., Seattle, \$24,475; R. B. Teeter, \$24,891; Hillyard & Martin, \$23,928; Knoell Bros., \$21,627.

**Green Bay, Wis.**—The Andrews Asphalt Paving Company has been awarded contract for over four miles of streets. Sheet asphalt will be used.

**Madison, Wis.**—Bids for laying cement walks to be ordered by the Board of Public Works chargeable to abutting property, were opened as follows: Geo. Nelson, 12½ cents per square foot; John R. Cullman, 12½ cents per square foot; and P. H. Carey, 12 cents per square foot. On motion of Alderman Steensland the bid of P. H. Carey was accepted.

**Platteville, Wis.**—The U. S. Pipe and Foundry Company, of Chicago, was low bidder on 5,000 feet cast-iron water pipe and specials, and was awarded contract May 19.—F. C. Robinson, Superintendent of Water Works.

**Racine, Wis.**—Bids were received by the Board of Public Works for paving Washington avenue from Eighth street to Asylum avenue, the prices asked running from \$2.10 to \$2.17 per square yard. Nine bids were received, but one, that of John O. Jones, was referred to Council unopened, as it was received a minute after the specified time. Among those opened James Cape & Sons were the lowest, their price being \$2.10 for pavement and 22½ cents per lineal foot for resetting the curb.

**Brantford, Ont., Can.**—The contract for constructing a storage reservoir here has been awarded to H. F. Mooers, of Kingston, Ont., at \$15,000.—T. Harry Jones, City Engineer.

**Dartmouth, N. S.**—D. T. Stewart & Co., have been awarded the contract for the supplying of cast-iron water pipe for Dartmouth.

## PATENT CLAIMS

889,524. Curb, Drain and Conduit. Robert T. Hooper, Youngstown, Ohio. Serial No. 384,595.

The herein described combined curb, drain and conduit, provided with longitudinally extending openings for the reception of wires, pipes and the like, and formed with a rearwardly sloping upper surface constituting a drain or gutter and with a curb portion extending along the upper surface at the rear side thereof and in a higher plane than the said drain surface and also formed at its front with a horizontally extending upwardly facing shoulder, and at its rear with a corresponding shoulder in a higher plane than the first named shoulder, said two shoulders being designed to insure a perfect alignment of the structure with the street and sidewalk pavings.

889,599. Cesspool, Drain and Distributer. Samuel B. Goff, Camden, N. J. Serial No. 407,839.

A primary receptacle, a secondary vessel in communication therewith, a conduit leading from the secondary vessel and outlet valves for said receptacle and vessel opening to a common point of deposit.

889,603. Dump-Wagon. John W. Haywood, Baldwinsville, N. Y. Serial No. 394,336.

A door operating mechanism for dump wagons comprising a chain having one end connected to the door and its other end connected to a fixed anchorage on the wagon, and a lever provided with a bearing engaging the intermediate portion of the chain.

889,692. Paving-Block. Henry A. Kratzer, Clearfield, Pa. Serial No. 407,188.

A roadway comprising paving blocks, each block having a V-shaped side and a straight side opposite the V-shaped side, the roadway being laid in two block courses, with the V-shaped side of the blocks in one course receiving adjacent ends of the blocks in the other course.

889,745. Knockdown Culvert. Fred S. Beach and Fitch H. Beach, Charlotte, Mich. Serial No. 277,168.

A knockdown culvert including a plurality of substantially semi-cylindrical circumferentially corrugated sections having their opposite longitudinal edges provided with spaced recesses defining intermediate locking lugs adapted to engage the lugs of an adjacent section when the several sections are assembled to form a culvert, said lugs being curved transversely to conform to the circumferential corrugations of an adjacent section with their free ends alternately offset, said sections being arranged to break joint with the lugs on one section engaging the lugs of two adjacent sections and with the transversely curved portions of the lugs bearing against the circumferential corrugations on the interior and exterior walls of said sections.

889,796. Concrete Sewer Construction. Burton Lowther, Kansas City, Mo., Assignor to Moehel & Lowther Engineering Co., Kansas City, Mo., a Corporation of Missouri. Serial No. 419,053.

Concrete sewer construction, comprising invert sections arranged endwise together and provided with reinforced rods projecting upwardly beyond the upper edges of said sections, side sections resting edgewise upon the upper edges of the invert sections and provided in their adjacent edges and outer sides with grooves receiving the upwardly projecting reinforce rods of the invert sections, cap sections between and resting on the upper ends of the side sections and provided with grooves in their meeting edges and outer sides registering with the grooves of the side sections, and arch-shaped rods occupying the registering grooves of the side and cap sections and secured at their lower ends to the upper ends of the reinforce rods of the invert sections.

889,797. Street Sweeper. Richard I. Madden, St. Louis, Mo. Serial No. 393,919.

In a street sweeper, a wagon body, a broom automatically rotated against the surface passed over by the travel of the wagon, an endless conveyor positioned to receive the sweepings from the broom, a chute, a scraper for directing the sweepings from the conveyor into said chute, and means for delivering the material from the chute into the body, substantially as set forth.

## Civil Service Examinations

**Fortification Draftsman.**—The United States Civil Service Commission announces an examination, July 8-9, to fill a vacancy in the position of fortification draftsman, Engineer Department at Large, San Francisco, at a salary of \$1,500. Application Form 1312.

**Hydrographic Draftsman.**—The United States Civil Service Commission announces an examination, July 1-2, to fill a vacancy in the position of hydrographic draftsman at a salary of \$900 per annum. Application Form 1312.



## Proposals

### PUMPING STATION

Elizabeth, N. J.  
Sealed proposals for a pumping station in the city of Elizabeth, N. J., will be received by the City Council, of said city, at a meeting to be held in City Hall, in said city, on Wednesday evening, July 1, 1908, between 8 and 8:30 o'clock.

Plans and specifications may be examined at the office of the City Surveyor.

### WATER WORKS AND SEWERS

Columbia, Miss.  
Bids will be received by the Mayor and Board of Aldermen until 3 p.m., June 30, 1908, for materials and construction of complete water works and sewer systems. Plans and specifications can be seen at the City Clerk's office after June 15, or can be had of the Engineer, Xavier A. Cramer, Magnolia, Miss. Specifications furnished free. Complete set of plans sent upon deposit of \$10, which said deposit will be refunded upon return of plans in good order.

### SEWER AND WATER SYSTEM

Quartermaster's Office, U. S. Army.  
New Orleans, La., May 5, 1908.  
Notice is hereby given that opening of sealed proposals for Sewer and Water Systems at Ft. St. Philip, La., asked for in my advertisement of April 15, 1908, will be at 10 a. m., June 15, 1908, instead of May 15, 1908. Information furnished on application. Envelopes containing proposals should be marked "Proposal for Sewer and Water Systems," addressed ARTHUR CRANSTON, Q. M.

### INTERCEPTING SEWER

Elizabeth, N. J.  
Sealed proposals for an intercepting sewer and lateral sewers connected therewith, in the city of Elizabeth, N. J., will be received by the City Council of said city, at a meeting to be held in City Hall, in said city, on Wednesday evening, July 1, 1908, between 8 and 8:30 o'clock.

Plans and specifications may be examined at the office of the City Surveyor.

### PAVING AND CURBING.

The city of Goldsboro is open for propositions for the construction of about 5,000 square yards of vitrified brick (or block) pavement, and about 12,000 square feet of granolithic pavement, with necessary stone curbing. Bitulithic will also be considered. Address

D. J. BROADHURST,  
City Clerk, Goldsboro, N. C.

### PAVING AND EXCAVATING

#### Notice to Contractors

Paducah, Ky., May 25, 1908.  
The Board of Public Works will receive bids until 3 o'clock p.m. June 9, 1908, for the improvement of Broadway and Jefferson streets, from Ninth to Eleventh streets. Bids will be received on sheet asphalt, brick paving block and Warren's bitulithic paving, and figures on each bid reported to the General Council for their selection of material.

Approximate quantities are as follows: Excavation, 3,800 cubic yards. Paving, 10,000 square yards.

A certified check on a bank of the City of Paducah, Kentucky, payable to John J. Dorian, City Treasurer, for \$500 must accompany each bid. Plans and specifications can be seen at the City Engineer's office.

This being portion of same work for which bids were opened on May 12, 1908, and all bids rejected on account of being too high. For further information apply to

L. A. WASHINGTON,  
City Engineer.  
(23-24)

### PAVING WITH BRICK ON CONCRETE

Charlotte, Mich.

The City of Charlotte, Michigan, hereby gives notice that, sealed proposals will be received until 4 o'clock P. M., on the 15th day of June, 1908, at the office of the City Clerk for furnishing of all material and doing the work of grading and paving Lawrence avenue, west, from Cochran avenue to the east line of Bostwick avenue, and Lovett street, east, from the east line of Cochran avenue to the west line of Washington street, and westward, from the west line of Cochran avenue to the east line of Bostwick avenue, on concrete foundation with asphalt filler. Bidders will also state the price of combined curb and gutter. The work to be done according to specifications, plans, and diagrams on file in the office of the City Clerk, and which plans and diagrams contain an estimate of excavation and quantity work to be done. A guarantee of workmanship and durability for the term of five years will be required. A certified check for one thousand dollars must accompany each bid; the same to be forfeited if the bid be accepted and the bidder neglect or refuse to enter into contract. The city reserves the right to reject any and all bids. Bidders will furnish satisfactory surety bonds to be approved by the Council of said city for performance of contract, for labor and material, and for said guaranty.

CLAUDE E. FISHER,  
City Clerk.  
(23-24)

### SALE OF ELECTRIC LIGHT PLANT

Valley City, N. D.  
Sealed bids will be received by the City Council of the City of Valley City, North Dakota, up to 8 o'clock p.m., Monday, July 6, 1908, for the sale of the city's electric light plant. Said bids must be addressed to the City Auditor of said city and must be endorsed on the outside thereof, "Bids for Electric Light Plant."

No bid will be considered which is for a less sum than \$40,000, and all bids must be accompanied by a certified check for 5 per cent. of the amount of bid, and made payable to the City Treasurer of said city.

An exclusive 20-year franchise will be granted the successful bidder, the terms and conditions of which will be agreed upon on the acceptance of any bid.

An inventory and any information can be obtained from the City Auditor of said city upon application.

The right is reserved to reject any and all bids.

By order of the City Council.

H. F. HALVERSON,  
City Auditor of Valley City, N. D.  
Dated May 12, 1908. (23-26)

### AQUEDUCT

Board of Public Works.

Los Angeles, Cal., May 15, 1908.

Sealed proposals will be received at the office of the Board of Public Works, July Seventeen, 1908, for the construction of the Jawbone Division of the Los Angeles Aqueduct, with a capacity of four hundred second feet, including about forty-three thousand lineal feet of lined tunnel, sixty thousand lineal feet of lined conduit, and three hundred forty thousand cubic yards of excavation. The work is subdivided into three sections, and separate or lump sum proposals will be received. Plans and specifications may be obtained from the Board.

HORACE B. FERRIS,  
Secretary.

### BRIDGES

Jackson, Ohio.

Bids are asked until 1 o'clock a.m., on June 17, 1908, by Ed. Monahan, County Surveyor, Jackson County, O., for seven reinforced concrete bridges, containing 370 cubic yards, and 72 foot span steel bridge; also stone abutments for steel bridge, containing 130 cubic yards.

ED. MONAHAN,  
County Surveyor.

### STREET LIGHTING

Bids will be received at the office of the City Clerk until June 17, 1908, at 4 o'clock p. m., for the lighting of the streets of the city of Natchez, Miss., for a term of five years from 1st day of March, 1909. Specifications on file in City Clerk's office, and can be had on application. Bids to be sealed.

GEO. T. EISELE,  
City Clerk.

### STREET LIGHTING

Wilkes-Barre, Pa.

Sealed proposals will be received at the office of the City Clerk, Wilkes-Barre, Pa., until Tuesday, June 16, 1908, at 12 o'clock, noon, for lighting the streets, lanes and public places of said city with incandescent gas or naphtha lights for the period of three or five years from the 15th day of July, 1908, in accordance with specifications and bidding blanks on file in said office, copies of which may be had upon application to the City Clerk. Proposals to be endorsed "Proposals for Street Lighting" and addressed to Fred H. Gates, City Clerk, Wilkes-Barre, Pa., and must be accompanied by a certified check in the sum of one thousand dollars made payable to the Treasurer of the City of Wilkes-Barre and must be in the hands of the City Clerk not later than 12 o'clock, noon, June 16, as aforesaid. The Joint Lighting Committee reserves the right to reject any or all bids not deemed advantageous to the City of Wilkes-Barre.

R. H. RICHARDS,  
Chairman.  
(23-24)

### PROPOSALS FOR PLANS AND SPECIFICATIONS FOR SEWER.

Shelbyville, Ind., June 5, 1908.  
Sealed proposals will be received at the office of the City Engineer up to 6 o'clock p.m. Tuesday, July 7, 1908, for the preparation of plans and specifications, including estimate of all costs, for complete sanitary and storm water system, and sewage disposal plant. Such plans will necessitate the taking of all measurements and all levels of all streets by the Engineer making such plans. Address

J. H. PHILLIPS,  
Shelbyville, Ind.

### WANTS

SUPERINTENDENT or estimator, granitoid work, concrete, asphalt mastic and composition roofing, fourteen years' experience; reference furnished. Address "M. 21," Municipal Journal, New York.

POSITION WANTED by a municipal engineer: technical education and twelve years' practical experience in paving, sewers and municipal improvements; best of references; 33 years; American. E. H. S., care Municipal Journal and Engineer. (21-24)

CLERICAL and technical positions in all lines; positions in municipal and manufacturing; we can interest any ambitious man; write fully of experience; service confidential. Hapgoods, 305 Broadway, New York, or 1010 Hartford Bldg., Chicago.

FOREMAN, 36, with ten years' practical experience in construction of dams, water works, sewers, roads and all kinds of pipe lines, heavy or light work; desires position; best of reference. Address "K. 21," Municipal Engineer, New York.

## FOR INFORMATION

or Books relating to Municipal Matters, write

Municipal Journal and Engineer

# RAILS

Locomotives  
Contractors' Equipment

Walter A.

## "ZELNICKER"

SUPPLY CO., IN ST. LOUIS

SEND FOR OUR WEEKLY  
LIST COMPRISING OVER  
1,000 ITEMS

## Municipal Proposal Advertising

SHOULD BE INSERTED IN

## Municipal Journal and Engineer

THE ONLY WEEKLY MUNICIPAL PAPER.

## SAVE YOUR WASTE OIL

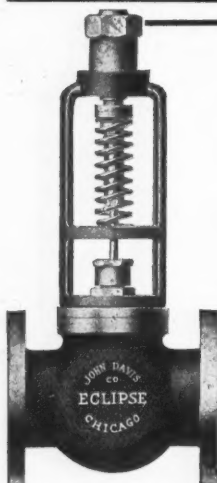


The grit and other impurities contained in lubricating oil once used are eliminated by

### The Acme Oil Filter

Animal bone black, the best filtering material, is used. The process is simple, thorough and the filter is easily cleaned. Let us write you about trial proposition.

**WALTER L. FLOWER** STEAM SPECIALTY CO.  
323 S. 8th ST., ST. LOUIS, MO.



Every Water Works Plant should be equipped with a pump regulator.

### The Eclipse Pump Regulator

will prevent the pump from racing and will maintain a constant pressure.

Send for Complete Specialty Catalogue

**The John Davis Co., Chicago**

"Delays are dangerous"—in contracting work they are costly. Don't buy experiment wagons and help pay the makers' bills for the experiment.

## Buy Watson Dump Wagons and Dodge Repair Bills

The Catalogue will explain.

**Watson Wagon Co.,**

Home office and factory, Canastota, N. Y.



## The Water Way

**DAILY SERVICE**

**BETWEEN**

**DETROIT AND BUFFALO**



The D. & B. Line Steamers leave Detroit week days at 5:00 p. m., Sundays at 4:00 p. m. (central time) and from Buffalo daily at 5:30 p. m. (eastern time), reaching their destination the next morning. Direct connections with early morning trains. Superior service and lowest rates between eastern and western states.

### RAIL TICKETS AVAILABLE ON STEAMERS

All classes of tickets sold reading via Michigan Central, Wabash and Grand Trunk railways between Detroit and Buffalo in either direction will be accepted for transportation on D. & B. Line Steamers.

Send two cent stamp for illustrated pamphlet and Map of Great Lakes. Address L. G. Lewis, G. P. A., Detroit.

**DETROIT & BUFFALO STEAMBOAT CO.**  
PHILIP H. McMILLAN, Vice Pres. A. A. SCHANTZ, Gen. Mgr.



**FAIRBANKS VALVES  
PRATT & CADY VALVES  
FIRE HYDRANTS  
WATER VALVES  
INDICATOR VALVE POSTS**

Also High Pressure Valves for Steam Power Plants.

**WESTERN VALVE CO.**

181-183 Lake Street

**Chicago**

Branches

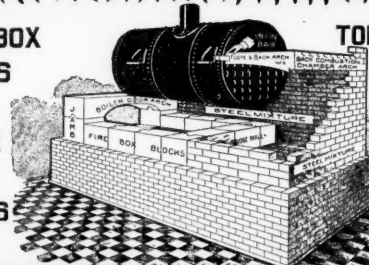
ST. LOUIS

KANSAS CITY



## "STEEL MIXTURE"

**FIRE BOX  
BLOCKS  
AND  
BOILER  
DOOR  
ARCHES**



**TONGUED AND  
GROOVED.  
PATENT BACK  
COMBUSTION  
CHAMBER  
ARCH**

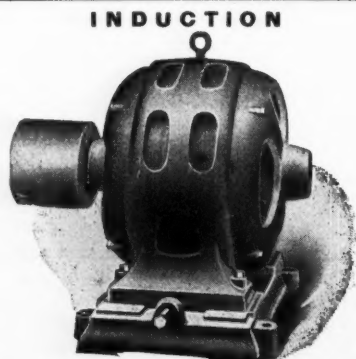
MANUFACTURED BY

**MCLEOD & HENRY CO.**

TROY, N. Y. U.S.A.

BRANCH OFFICE  
1402 BROADWAY  
NEW YORK CITY

**TRIUMPH**



**MOTORS**

**TRIUMPH ELECTRIC CO.**

Ask for Bulletin M. J. 321

**CINCINNATI, O.**



**"FIRESTONE"  
RUBBER TIRES**

Made of the finest materials—by the most skillful workmen—under the watchful eye of expert foremen—they establish the standard of tire excellency.

**Firestone Tire & Rubber Co.**

AKRON, O.